

CAP-ing Growth? Arizona's Need for Complementary, Statewide Land Use and Water Management Policies

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*"Until we understand what the land is, we are at odds with everything we touch."*¹

INTRODUCTION

The Phoenix metropolitan area is a quintessential example of sprawl.² The ring of mountains surrounding the Valley is easily visible from any mid-sized building or scenic lookout.³ Phoenix's desert views and agreeable climate have drawn millions of people to the Valley in previous decades.⁴ However, sprawl left unchecked has created significant challenges for this water-stressed region, as water planners, legislators, and developers attempt to strike the appropriate balance between growth, housing affordability, and groundwater sustainability.⁵

The Phoenix metro area's water supply includes surface water from the Colorado River and in-state rivers, groundwater, and reclaimed water.⁶ Older cities like Phoenix, Scottsdale, and Mesa have access to longstanding surface

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1. Wendell Berry, *A Native Hill*, 21 HUDSON REV. 601, 629 (1986).

2. Urban sprawl refers to the rapid and uncontrolled expansion of urban areas. John P. Rafferty, *Urban Sprawl*, ENCYC. BRITANNICA, <https://www.britannica.com/topic/urban-sprawl> (Oct. 27, 2025) [<https://perma.cc/28YU-WJKB>]. Sprawl often entails low-density development and high automobile use. *Id.*

3. See Gregory Lewis McNamee, *Phoenix*, ENCYC. BRITANNICA, <https://www.britannica.com/place/Phoenix-Arizona> [<https://perma.cc/U87P-CYWL>]. Phoenix lies within the Salt River valley, and locals call the Phoenix metro area "the Valley of the Sun" or "the Valley." *Id.*

4. See Andrew Needham, *The Problem with 'Why Do People Live in Phoenix?'*, ATLANTIC (Aug. 4, 2023), <https://www.theatlantic.com/health/archive/2023/08/phoenix-record-excessive-heat-wave-streak/674924>.

5. See *infra* Part II.

6. *Arizona's Water Supplies*, ARIZ. WATER FACTS, <https://www.arizonawaterfacts.com/water-your-facts> [<https://perma.cc/2XA3-MKM8>].

water rights from the Colorado, Salt, and Verde Rivers.⁷ Newer municipalities like Buckeye and Queen Creek, by contrast, rely heavily on groundwater pumping in lieu of longstanding surface water rights.⁸

The Groundwater Management Act (“GMA”) of 1980 created a highly regulated groundwater rights regime in areas experiencing groundwater depletion.⁹ The GMA designated these areas—which includes most of the Phoenix metro area—as Active Management Areas (“AMAs”).¹⁰ In AMAs, developers must demonstrate that they have 100 years of physically, legally, and continuously available water to construct and sell subdivisions.¹¹

Although the GMA reduced catastrophic aquifer depletion, overdraft is still a problem in central Arizona.¹² In response to data showing that the Phoenix AMA does not have sufficient groundwater supply to meet demand for the next century, in 2023, the Arizona Department of Water Resources (“ADWR”) and Arizona Governor Katie Hobbs prohibited the approval of new developments in the AMA that plan to rely solely on groundwater.¹³

7. Kathryn Sorensen & Sarah Porter, *Impacts of Colorado River Shortage to Tap Water Deliveries in Central Arizona*, KYL CTR. FOR WATER POL’Y MORRISON INST. 1, 5 (June 2023), <https://morrisoninstitute.asu.edu/sites/g/files/litvpz841/files/2024-10/IMPACTS%20OF%20COLORADO%20RIVER%20SHORTAGE%20TO%20TAP%20WATER%20DELIVERIES%20IN%20CENTRAL%20ARIZONA.pdf?ecd42=518001255&ecd73=410668712> [https://perma.cc/7PK9-2DAB].

8. See Hunter Bassler, *‘All Groundwater Is Spoken For’: New West Valley Construction Can No Longer Rely on Groundwater After Release of New Report*, 12 NEWS (Jan. 11, 2023), <https://www.12news.com/article/news/local/water-wars/arizona-100-year-water-supply-cut-off-west-valley-buckeye-sun-city/75-23784423-4b83-41f5-95cf-12758179ff88> [https://perma.cc/C7VJ-PBSJ]; see also Peter Valencia & David Baker, *Gov. Hobbs Announces Pause for New Home Builds that Rely on Groundwater*, ARIZ.’S FAM. (June 1, 2023), <https://www.azfamily.com/2023/06/01/live-gov-hobbs-provides-update-arizonas-water-resources-highlights-new-investments> [https://perma.cc/X4LY-6B7K].

9. See Sharon Megdal et al., *The Forgotten Sector: Arizona Water Law and the Environment*, 1 ARIZ. J. ENV’T L. & POL’Y 243, 279–80 (2011).

10. *Id.*

11. *Id.* at 281–82; ARIZ. ADMIN. CODE § 12-15-704(B)(3) (2022).

12. See Ella Nilsen, *Arizona Announces Limits on Construction in Phoenix Area as Groundwater Disappears*, CNN (June 1, 2023), <https://www.cnn.com/2023/06/01/us/arizona-phoenix-groundwater-limits-development-climate/index.html#:~:text=Arizona%20officials%20announced%20Thursday%20the,and%20climate%20change%2Ddriven%20drought> [https://perma.cc/Q2LW-Z8J5].

13. *Id.*; ARIZ. DEP’T WATER RES., PHOENIX AMA GROUNDWATER MODEL AND 100-YEAR ASSURED WATER SUPPLY PROJECTION UPDATED WITH 2022 DATA ES-2 (Nov. 2024), https://infoshare.azwater.gov/docushare/dsweb/Get/Document-99422/2024_PhX_AMA_100_Yr_Projection_Update.pdf [https://perma.cc/E357-ZE3N] (projecting 3.6 million acre-feet in unmet demand for the Lower Hassayampa Sub-basin in the Phoenix AMA).

Despite water supply challenges, the Phoenix metro area's population is expected to continue growing: one estimate predicts that the area's population will rise as high as 10.66 million by 2060,¹⁴ surpassing the current Arizona population of 7.62 million.¹⁵ As more people move to central Arizona, there is a growing need for affordable housing.¹⁶

Although housing affordability problems in the Valley are particularly acute in 2025, Arizona policymakers have long been aware of the need to manage growth in a region with great natural beauty and finite water supplies.¹⁷ The Growing Smarter Acts of 1998 and 2000 required municipalities to create and adhere to comprehensive plans that set concrete policies for cities' future development.¹⁸

Further, recent legislation has promoted infill development and expedited zoning processes consistent with smart growth policies.¹⁹ Despite these provisions, Arizona still lacks comprehensive policies that consider land use management, housing affordability, and water sustainability as intertwined challenges.

This Comment argues that Arizona should implement a comprehensive, statewide land use and water management plan that complements the GMA and Growing Smarter Acts. While the GMA has helped Arizona's urban areas mitigate catastrophic overdraft, the Act continues to facilitate growth despite

14. 2022-2060 State and County Population Projections: Arizona Summary Medium Series, ARIZ. OFF. OF ECON. OPPORTUNITY (Dec. 23, 2022), <https://oeo.az.gov/population/projections> [<https://perma.cc/C6WX-CW76>] (click "Summary Medium Series" hyperlink under "Summary Tables").

15. July 1, 2024 Population Estimates for Arizona Counties, Incorporated Places, and Unincorporated Balance of Counties, ARIZ. OFF. ECON. OPPORTUNITY (July 1, 2024), https://oeo.az.gov/sites/default/files/data/popest/2024_Estimates/July1_2024_Arizona_Population_Estimates.pdf [<https://perma.cc/7ZPU-4PCN>].

16. See *Untangling Housing Affordability & Groundwater Regulation*, KYL CTR. FOR WATER POL'Y MORRISON INST. 3 (Aug. 2023), <https://morrisoninstitute.asu.edu/sites/default/files/2023-11/UntanglingHousingAffordabilityGroundwaterRegulation.pdf> [<https://perma.cc/TPY4-QDLE>].

17. See Julie Witherspoon, *Is Arizona Growing Smarter? A Review of the Growing Smarter Statutes and Recommendations for Improving Growth Management in Arizona*, SONORAN INST. 1–2, <https://sonoraninstitute.org/files/pdf/is-arizona-growing-smarter-growing-smarter-statutes-and-recommendations-for-improving-growth-management-in-arizona-10022008.pdf> [<https://perma.cc/H4BK-U3BE>]; Candida M. Ruesga, *The Great Wall of Phoenix?: Urban Growth Boundaries and Arizona's Affordable Housing Market*, 32 ARIZ. ST. L.J. 1063, 1071 (2000).

18. See *infra* Section III.B; H.B. 2361, 43d Leg., 2d Reg. Sess. (Ariz. 1998); S.B. 1001, 44th Leg., 4th Spec. Sess. (Ariz. 2000).

19. See *infra* Section III.C; H.B. 2720, 56th Leg., 2d Reg. Sess. (Ariz. 2024); H.B. 2721, 56th Leg., 2d Reg. Sess. (Ariz. 2024); H.B. 2297, 56th Leg., 2d Reg. Sess. (Ariz. 2024); S.B. 1162, 56th Leg., 2d Reg. Sess. (Ariz. 2024).

water challenges. While the Growing Smarter Acts require municipalities to think strategically about growth, they do not require localities to limit sprawl or implement smart growth strategies.

Part I provides a background on assured water supply laws and the GMA. Part II explains the current challenges to central Arizona's groundwater supply and how municipalities and water managers are responding. Part III describes the concept of "smart growth" in land use management and how it has been applied in Arizona. Part IV argues that neither the GMA nor the Growing Smarter Acts are adequate substitutes for a statewide planning regime that addresses the intersections between population growth, housing affordability, and water supply. Part V concludes by advocating for a comprehensive land use and water planning scheme to increase Arizona's resiliency and adaptivity to natural resource challenges.

I. THE GROUNDWATER MANAGEMENT ACT

Arizona has a bifurcated water management policy that treats groundwater and surface water as separate legal entities.²⁰ Groundwater management in Arizona is unique and reflects the challenges of managing urban growth and water supply in an arid environment.²¹

In the 1980s, the Phoenix and Tucson areas were experiencing severe groundwater overdraft: water users were pumping water out of aquifers at a rate much faster than it naturally replenishes.²² Groundwater overdraft led Arizona legislators to pass the GMA, which created a highly regulated groundwater rights regime in areas with the most significant overdraft, designating these areas as AMAs.²³ The GMA established an assured water supply program within AMAs, connecting land use, growth, and water supply

20. See *Bristor v. Cheatham*, 255 P.2d 173, 176–77 (Ariz. 1953) (holding that groundwater is not subject to appropriation like surface water but rather is subject to reasonable use principles).

21. See Katherine Sypher, *Water in Crisis: Despite Conservation Efforts, Arizona's Groundwater Supply Still at Risk*, APM RSCH. LAB (July 8, 2021), <https://www.apmresearchlab.org/10x-az-groundwater> [<https://perma.cc/CE82-U4H4>].

22. Brian McGreal & Susanna Eden, *Arizona Groundwater Management - Past, Present and Future*, in ARROYO, UNIV. ARIZ. WATER RES. RSCH. CTR. 2 (2021), <https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/attachment/Arroyo-2021-Groundwater-Management.pdf> [<https://perma.cc/2S2Z-XHL4>]. Natural replenishment occurs as surface water, including rain and runoff, percolate back into the aquifer. *Groundwater Overdraft*, WATER EDUC. FOUND., <https://www.watereducation.org/aquapedia/overdraft> [<https://perma.cc/5RR2-2DSH>].

23. Kirsten Engel et al., *Arizona's Groundwater Management Act at Forty: Tackling Unfinished Business*, 10 ARIZ. J. ENV'T L. & POL'Y 187, 192–93 (2020).

availability.²⁴ This Part describes general features of assured water supply programs, then explains the regulatory structure of AMAs in Arizona.

A. Features and Justifying Aims of Assured Water Supply Programs

Assured water supply programs like the GMA serve as a linchpin connecting water and land use management. Broadly, assured water supply programs predicate certain development actions that occur at the local government level, such as recording a plat, on demonstrating an available, sustainable water supply.²⁵ Assured water supply programs promote the “[s]tatewide interests in consumer protection for home buyers, fostering sustainable growth, ensuring some degree of connection between land use and water supply planning, avoiding unreasonable depletion of shared resources, and, in some cases, encouraging the wise use of water.”²⁶

Assured water supply programs are unique because they unite traditionally disconnected areas of law: water supply and land use planning.²⁷ Water supply and land use planning are disconnected because they are generally allocated to different levels of government.²⁸ Federal and state governments regulate water supply management, while cities and counties regulate zoning and land use matters.²⁹

State agencies generally undertake long-term planning efforts to protect water resources.³⁰ Through infrastructure development and water supply projections, these state agencies ensure that water quantity and quality is sufficient for public health and welfare.³¹

At the same time, municipal and regional water suppliers shape water planning when they procure water rights and expand their service base.³² Land use planning occurs at the municipal or county level with state law

24. See Lincoln L. Davies, *Just a Big, “Hot Fuss”? Assessing the Value of Connecting Suburban Sprawl, Land Use, and Water Rights Through Assured Supply Laws*, 34 *ECOLOGY L.Q.* 1217, 1227, 1241–43 (2007).

25. See, e.g., Monica Green & Anne Castle, *Assured Water Supply Laws in the Western States: The Current State of Play*, 28 *COLO. ENV’T L.J.* 67, 89, 101, 108 (2017) (describing requirements of assured water supply programs in Arizona, Colorado, and Montana).

26. *Id.* at 71.

27. A. Dan Tarlock & Lora A. Lucero, *Connecting Land, Water, and Growth*, 34 *URB. LAW.* 971, 972 (2002).

28. *Id.*

29. *Id.*

30. Sarah Bates, *Bridging the Governance Gap: Emerging Strategies to Integrate Water and Land Use Planning*, 52 *NAT. RES. J.* 61, 72–73 (2012).

31. See *id.* at 72; see also Green & Castle, *supra* note 25, at 74.

32. See Bates, *supra* note 30, at 72–73.

oversight.³³ Localities define their future development decisions in a comprehensive plan, which must be consistent with state law.³⁴

Further, land use planning tends to subordinate water planning: while water planning seeks to accommodate population growth, land use planning generally does not limit development in response to water supply.³⁵ A. Dan Tarlock and Lora A. Lucero argue that separating water supply and land use planning causes “disconnects,” which involve gaps and conflicts between different jurisdictions.³⁶

Vertical disconnects may exist between different levels of government, and horizontal disconnects may exist between different communities in the same region.³⁷ Vertical disconnects occur when localities and state governments attempt to achieve differing and opposing development goals.³⁸ Horizontal disconnects emerge across similar levels of government when “local development decisions have tremendous regional impacts” and there are few incentives for local jurisdictions to collaborate to achieve ecosystem health.³⁹

Responsive to these disconnects, assured water supply programs often “incorporate water supply availability projections into local land use plans” and “subordinate development approvals to demonstrated water supply availability.”⁴⁰ Statewide assured water supply programs break down jurisdictional barriers to connect land and water planning by giving the state a measure of control over local land use decisions.⁴¹ Assured water supply programs also allow for holistic planning at a regional or local scale by ensuring that one local jurisdiction is not disproportionately using shared resources at the expense of another.⁴²

Effective assured water supply programs have both policy consistency and policy diversity. While consistency is the “linchpin to connect land, water

33. *See id.* at 73.

34. *Id.*

35. *Id.* at 69.

36. Tarlock & Lucero, *supra* note 27, at 973–74.

37. *Id.* at 974.

38. *See id.*; *see also* Craig Anthony (Tony) Arnold, *Introduction: Integrating Water Controls and Land Use Controls: New Ideas and Old Obstacles*, in *WET GROWTH: SHOULD WATER LAW CONTROL LAND USE?* 1, 37–39 (Craig Anthony (Tony) Arnold ed., 2005).

39. Tarlock & Lucero, *supra* note 27, at 974; Arnold, *supra* note 38, at 40.

40. Tarlock & Lucero, *supra* note 27, at 975.

41. Davies, *supra* note 24, at 1235.

42. *See id.* at 1234–36.

and growth,” policy diversity at different jurisdictional levels is also necessary to address complex, interconnected environmental issues.⁴³

Key attributes of assured water supply programs include compulsoriness, stringency, universality, granularity, and interconnectedness.⁴⁴ While mandatory showings of adequate water supply may not be politically popular, compulsory laws are more likely to have a meaningful impact on preserving aquifer health.⁴⁵ Additionally, programs should stringently require from developers “a showing of real, ‘wet’ water, not simply a citation to ‘paper water.’”⁴⁶

Assured water supply programs may only apply to certain portions of the state and certain types of development.⁴⁷ Universal application ensures that an entire state receives the consumer benefits of assured water supply laws, and that an unregulated region’s development does not compromise a regulated region’s aquifer health.⁴⁸ Further, granular assured water supply programs that regulate all or most types of development rather than setting a minimum subdivision size “provide[] consumer protection to a larger suite of potential home purchasers.”⁴⁹

Finally, assured water supply programs are most effective when they are merely one component of an interconnected water and land use planning scheme.⁵⁰ Water adequacy determinations informed by population projections, anticipated development, water availability, and climate projections situate assured water supply laws within broader regional and

43. Tarlock & Lucero, *supra* note 27, at 978; Craig Anthony (Tony) Arnold, *Polycentric Wet Growth: Policy Diversity and Local Land Use Regulation in Integrating Land and Water*, in *WET GROWTH: SHOULD WATER LAW CONTROL LAND USE?* 393, 414–15 (Craig Anthony (Tony) Arnold ed., 2005).

44. Davies, *supra* note 24, at 1280–91.

45. *See id.* at 1280–82.

46. *Id.* at 1280, 1282–84. Water attorneys distinguish between “wet water” and “paper water” to note that while one might have a legal “paper” right to water, the right may not translate to “wet” water that the rights holder can use. *See* Kelly Mott LaCroix et al., *Wet Water and Paper Water in the Upper Gila Watershed*, UNIV. ARIZ. COLL. AGRIC. & LIFE SCIS. 3 (July 2016), https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1708-2016_0.pdf [<https://perma.cc/K6G7-4YTA>]. Thus, even if a developer has a legal right to water, if the developer cannot regularly access that water due to physical constraints on water supply, it does not count toward a showing of physically available “wet water.”

47. *See infra* Section I.C. (discussing Arizona’s assured water supply laws).

48. *See* Davies, *supra* note 24 at 1284–86; *see also* Green & Castle, *supra* note 25, at 73–74.

49. Green & Castle, *supra* note 25, at 75; Davies, *supra* note 24, at 1286–88.

50. *See* Green & Castle, *supra* note 25, at 76–77.

statewide planning efforts.⁵¹ The assured water supply program created by the GMA partially embraces these principles.⁵²

B. A Brief History of Groundwater Management in Arizona

Traditionally, Arizona groundwater has been governed by the doctrine of reasonable use.⁵³ Under the reasonable use doctrine, water must be used “in connection with a beneficial enjoyment of the land from which it is taken”⁵⁴ and not wasted.⁵⁵ However, substantial increases in irrigated agriculture and population growth in Arizona during the mid-twentieth century led to concerns over groundwater overdraft and resulting subsidence.⁵⁶ It became clear that more than “reasonable use” was needed to negotiate burgeoning conflicts between booming cities, farms, and mines over increasingly scarce groundwater resources.⁵⁷

The GMA represents a compromise between these three interests: farmers agreed to limit their water use to pre-established water duties, mines agreed to engage in reasonable water conservation, and cities agreed not to grow without a 100-year assured water supply.⁵⁸ In 1980, the Arizona legislature passed the GMA, which superseded the doctrine of reasonable use in some regions and established a comprehensive regulatory framework for groundwater management.⁵⁹

The Act divided Arizona into three regulatory regions: AMAs, Irrigation Non-Expansion Areas (“INAs”), and areas still subject to reasonable use principles.⁶⁰ This tiered approach varies groundwater oversight throughout the state according to the severity of groundwater depletion.⁶¹ Through the

51. *Id.* at 76.

52. *See infra* Section IV.A (analyzing the effectiveness of the GMA in its current form).

53. *Bristor v. Cheatham*, 255 P.2d 173, 179 (Ariz. 1953).

54. *Id.* at 180.

55. *See* ARIZ. REV. STAT. ANN. § 45-602(A) (2024).

56. *McGreal & Eden*, *supra* note 22, at 1–3.

57. *Id.* For an account of the conflict between pecan grower FICO, mining company Anamax, and the City of Tucson that spurred the GMA’s creation, see Desmond D. Connall Jr., *A History of the Arizona Groundwater Management Act*, 1982 ARIZ. ST. L.J. 313, 315–18 (1982).

58. Connall, *supra* note 57, at 334–36, 342–43.

59. *Megdal et al.*, *supra* note 9.

60. *Id.* at 280.

61. OVERVIEW OF THE ARIZONA GROUNDWATER MANAGEMENT CODE, ARIZ. DEP’T WATER RES. 2, https://www.azwater.gov/sites/default/files/media/Arizona%20Groundwater_Code_1.pdf [<https://perma.cc/B7DY-PJDQ>]. INAs preserve water supply for existing irrigation uses by grandfathering irrigated acres and restricting newly irrigated land. *Options for Groundwater Conservation in Rural Arizona*, WATER FOR ARIZ., <https://www.waterforarizona.com/wp->

GMA, the Arizona legislature intended to mitigate groundwater overdraft in AMAs.⁶² The 100-year assured water supply requirement in AMAs helps urbanized areas achieve this goal.⁶³

C. Active Management Areas and the Assured Water Supply Requirement

To balance urban and economic growth with aquifer sustainability, the GMA initially established four regulatory regions called AMAs.⁶⁴ Within AMAs, the legislature limited new groundwater uses, grandfathered existing groundwater uses, created new types of transferable rights, and authorized ADWR to manage Arizona groundwater.⁶⁵ Additionally, new subdivisions within AMAs must demonstrate that they have enough water supplies to satisfy demand for the next century in order to obtain a plat for development and sell or lease the land.⁶⁶

The GMA requires that all proposed subdivisions obtain an assured water supply certificate or designation from ADWR.⁶⁷ A new subdivision can easily satisfy the assured water supply requirement if it is located within the service area of a city or town that has a Designated Assured Water Supply (“DAWS”).⁶⁸ If the municipal water provider does not have a DAWS, then the subdivision’s developer must independently obtain a Certificate of Assured Water Supply (“CAWS”) from ADWR.⁶⁹

content/uploads/2023/02/WAC-Options-for-Groundwater-Conservation.pdf
[<https://perma.cc/6VGC-FD3M>].

62. ARIZ. REV. STAT. ANN. § 45-401(A) (2024).

63. § 45-576.

64. Megdal et al., *supra* note 9, at 280. The GMA originally established the Prescott, Phoenix, Pinal, and Tucson AMAs. *Id.* ADWR subsequently designated AMAs in Santa Cruz, Douglas, and Willcox. *Active Management Area*, ARIZ. DEP’T WATER RES., <https://www.azwater.gov/ama/active-management-area-overview> [https://perma.cc/YUR9-J7QG].

65. *See* §§ 45-451–455 (restricting new groundwater usage); § 45-462 (freezing existing groundwater use and converting them to grandfathered rights); §§ 45-463–464 (establishing transferrable Type 1 and 2 non-irrigation grandfathered rights).

66. § 45-576.

67. *See id.* The assured water supply requirement ensures that water is physically, continuously, and legally available to meet the estimated water demand of the development for 100 years; that the water quality is adequate; that the water provider or developer is financially capable of constructing the water system; and that the groundwater use is consistent with the management plans and goals of the AMA. ARIZ. ADMIN. CODE § 12-15-704 (2024).

68. Engel et al., *supra* note 23, at 195; § 45-576.

69. § 45-576(A); § 32-2181(C).

Developers generally cannot rely solely on groundwater in their assured water supply application.⁷⁰ Instead, they must use renewable supplies or engage in underground water storage and replenishment.⁷¹ To obtain an assured water supply certification, many groundwater-dependent cities and developers in Maricopa, Pima, and Pinal counties enroll in the Central Arizona Groundwater Replenishment District (“CAGRDR”), which uses surface water to replenish the groundwater its members pump from the aquifer.⁷² While CAGRDR allows developers and cities to obtain assured water supply certifications without significant up-front investment, it does not guarantee that groundwater levels will remain stable in member areas located far away from CAGRDR replenishment sites.⁷³

Although the assured water supply requirement attempts to “prevent future growth that cannot be supported by available water supplies[.]”⁷⁴ it also has some troublesome loopholes. First, the assured water supply requirement only applies to subdivisions, which under Arizona law only includes for-sale developments split into more than five lots.⁷⁵ Some developers create “wildcat subdivisions” to evade the 100-year assured water supply requirement.⁷⁶ In a wildcat subdivision, a developer will purchase a residential parcel, initially presenting that the parcel will be used for fewer than six lots.⁷⁷ However, the developer later splits the parcel into more than five residential lots one at a time, intentionally—and legally—bypassing the AMA water planning process.⁷⁸

70. Jack A. Vincent, Comment, *What Lies Beneath: The Inherent Dangers of the Central Arizona Groundwater Replenishment District*, 38 ARIZ. ST. L.J. 857, 862–63 (2006). Most AMAs have a management goal of safe-yield, which is a long-term balance between groundwater withdrawal and recharge. *Active Management Area*, *supra* note 64. Allowing subdivisions to rely solely on pumped groundwater would impede the safe-yield goal absent other water conservation measures. *See id.*

71. Engel et al., *supra* note 23, at 195.

72. *Id.*

73. Chris Avery et al., *Good Intentions, Unintended Consequences: The Central Arizona Groundwater Replenishment District*, 49 ARIZ. L. REV. 339, 349, 351 (2007). Additionally, CAGRDR’s reliance on dwindling Colorado River supplies calls into question the long-term sustainability of relying on artificial recharge for groundwater management. *Id.* at 340, 350, 359.

74. Engel et al., *supra* note 23, at 195.

75. *See* GOVERNOR’S WATER POL’Y COUNCIL, “WILDCAT” DEVELOPMENT: ASSURED WATER SUPPLY COMMITTEE PROPOSAL 1–2 (2023), https://www.azwater.gov/sites/default/files/2023-11/20231114_Wildcat_Development_Proposal.pdf [<https://perma.cc/PA7L-YQGK>]; § 32-2101(59)(a).

76. GOVERNOR’S WATER POL’Y COUNCIL, *supra* note 75.

77. *See id.*

78. *Id.*; Jake Bittle, *Will Arizona Close a Loophole That Lets Developers Build Without Water?*, GRIST (Jan. 5, 2024), <https://grist.org/housing/arizona-river-verde-foothills-water-wildcat-subdivisions> [<https://perma.cc/2ZR4-LBPX>].

Discussions of wildcat subdivisions in Arizona proliferated when Rio Verde Foothills, an unincorporated neighborhood north of Phoenix, had to reckon with its lack of an assured water supply after neighboring city Scottsdale halted water deliveries to the community.⁷⁹ Scottsdale had been selling water to Rio Verde Foothills, but discontinued the water sales as the city began conserving its water because of Colorado River drought conditions.⁸⁰

After Rio Verde residents lived without Scottsdale water for months, Governor Hobbs signed an emergency bill that created the Rio Verde Foothills Standpipe District to deliver water to residents.⁸¹ As of 2025, the district receives Scottsdale water while Epcor Utilities Inc. constructs a standpipe for the district to begin independently receiving water.⁸²

The second loophole in the GMA is that the assured water supply requirement does not apply to short-term rental units.⁸³ Developers have turned to a build-to-rent model in groundwater-dependent communities like Casa Grande and Buckeye, constructing numerous short-term rental units on one large tract of land.⁸⁴ As of early 2025, Arizona had over 13,000 single-family build-to-rent homes in production, with 700 in Casa Grande and 1,900 in Buckeye.⁸⁵

While AMAs impose seemingly stringent requirements on developers to obtain an assured water supply before development, developers can still find legal ways to build residential units in AMAs without an assured water

79. Bittle, *supra* note 78.

80. Sasha Hupka, *Why This Arizona Community Was Cut Off from Its Water Supply*, USA TODAY (Jan. 19, 2023), <https://www.usatoday.com/story/news/nation/2023/01/19/scottsdale-rio-verde-foothills-water-crisis/11081256002> [<https://perma.cc/4AXJ-BX2U>].

81. S.B. 1432, 56th Leg., 1st Reg. Sess. (Ariz. 2023).

82. Brandon Gray, *Scottsdale City Council Approves Water Partnership with Rio Verde Foothills Standpipe District*, KTAR NEWS, <https://ktar.com/arizona-news/scottsdale-city-council-approves-water-partnership-with-rio-verde-foothills-standpipe-district/5536229> (Sept. 6, 2023) [<https://perma.cc/3GBR-NRLU>]; Shawn Raymundo & Sasha Hupka, *Scottsdale Refuses to Budge on Epcor Deadline as Rio Verde Foothills Faces Water Cutoff*, AZCENTRAL (July 24, 2025), <https://www.azcentral.com/story/news/local/scottsdale/2025/07/24/scottsdale-ignores-rio-verde-foothills-water-deadline/85316517007/?gnt-cfr=1&gca-cat=p&gca-uir=true&gca-epti=z11xx37p119350n00----c00----d00----v11xx37b0063xxd006365&gca-ft=244&gca-ds=sophi>.

83. *Arizona Homebuilders Are Using a Rental Loophole to Get Around Water Laws*, KJZZ (Nov. 6, 2023), <https://www.kjzz.org/2023-11-06/content-1862171-arizona-homebuilders-are-using-rental-loophole-get-around-water-laws> [<https://perma.cc/8F59-DRA6>] [hereinafter KJZZ, *Arizona Homebuilders*].

84. *Id.*; Bassler, *supra* note 8.

85. *Here's How Arizona Is Driving the Build-to-Rent Boom*, AZBIGMEDIA (Feb. 11, 2025), <https://azbigmedia.com/real-estate/heres-how-arizona-is-driving-the-build-to-rent-boom> [<https://perma.cc/NEJ2-QQZQ>].

supply. As discussed in the next Part, mechanisms exist to prevent new growth in AMAs without adequate water, although these tools have not solved all groundwater challenges in central Arizona.

II. GROWTH'S IMPACT ON GROUNDWATER IN ARIZONA

Central Arizona's recent growth has placed several additional challenges on state water management. Arizona's population has increased by 1.22 million people since 2010 and could grow from 7.62 million to 10.7 million people by 2060.⁸⁶ Meanwhile, household growth is increasing twice as fast as housing unit growth, and housing prices in the state have nearly doubled from 2010 to 2024.⁸⁷ The median gross rent in Arizona, adjusted for inflation, has increased by 36% between 2010 and 2023.⁸⁸ Consequently, in 2024 eviction filings reached their highest levels since data recording began in 2005, while homelessness reached its all-time highest levels.⁸⁹

Maricopa County—which includes the Phoenix metro area—is the fourth most populous county in the United States.⁹⁰ In 2022, it was the fastest-growing county in the country,⁹¹ and in 2024, it was ranked as the top county in the nation for economic growth.⁹² While growth in central Arizona has skyrocketed, developers must reckon with tightening regulatory structures based on groundwater availability. As a result, municipalities like Queen Creek are finding innovative ways to construct a diverse water portfolio.

A. Phoenix AMA Housing Moratorium and Alternative Paths to Designation of Assured Water Supply

Significant population growth in Phoenix over the last decade has led to concern over the Valley's groundwater supply, despite the comprehensive GMA framework. In 2023, ADWR released a report projecting that the

86. COOK-DAVIS ET AL., ARIZ. RSCH. CTR. FOR HOUS. EQUITY AND SUSTAINABILITY, STATE OF HOUSING IN ARIZONA 3–4 (Aug. 8, 2025), https://issuu.com/asuwattscollge/docs/arches_-_2025_state_of_housing_in_arizona_report [<https://perma.cc/5FJL-HTME>].

87. *Id.* at 4, 14.

88. *Id.* at 21.

89. *Id.* at 30.

90. *Maricopa County Quick Facts: Population*, MARICOPA CNTY., <https://www.maricopa.gov/3598/County-Quick-Facts> [<https://perma.cc/P84A-BCK2>].

91. *Id.*

92. Audrey Jensen, *Maricopa County Tops Nationwide List for Economic Development*, ABC15 ARIZ. (July 19, 2024), <https://www.abc15.com/news/business/maricopa-county-tops-nationwide-list-for-economic-development> [<https://perma.cc/6SC8-EJF5>].

Phoenix AMA did not have sufficient groundwater supply to meet demand for the next century.⁹³ Based on the Phoenix AMA Groundwater Model, ADWR announced that it would not approve new assured water supply determinations in the Phoenix AMA that depend solely on groundwater without a showing of “alternative water sources.”⁹⁴ Queen Creek is uniquely affected by the moratorium because it is a groundwater-dependent community and does not have a DAWS.⁹⁵

In 2024, ADWR implemented a set of regulations that create a new way for municipal providers to obtain an assured water supply designation, called an Alternative Path to Designation of Assured Water Supply (“ADAWS”).⁹⁶ Under this program, groundwater-dependent municipalities like Queen Creek can obtain a DAWS even if they continue pumping groundwater, provided that they decrease groundwater pumping over time and transition to renewable water supplies such as effluent, surface water, or transported groundwater.⁹⁷

To receive a DAWS, a new applicant may rely on groundwater pumping within the AMA alongside other supplies, so long as the applicant obtains “New Alternative Water Supplies” that eventually substitute 25% of its groundwater pumping for alternative water sources.⁹⁸ Thus, development in groundwater-dependent communities can continue under ADAWS if those developers pursue renewable water supplies at some future time.⁹⁹ Water managers were under substantial pressure to allow new development in the

93. Nilsen, *supra* note 12.

94. *Phoenix AMA Groundwater Supply Updates*, ARIZ. DEP’T WATER RES., <https://www.azwater.gov/phoenix-ama-groundwater-supply-updates> [https://perma.cc/SF4T-FMF8].

95. Valencia & Baker, *supra* note 8. Thus, some undeveloped properties in Queen Creek without a CAWS must find non-groundwater supplies to move forward in their applications. *Id.*

96. *See Alternative Path to Assured Water Supply (ADAWS) Rulemaking*, ARIZ. DEP’T WATER RES., <https://www.azwater.gov/how-do-i/find-info/alternative-path-assured-water-supply-public-comments> [https://perma.cc/7FUZ-F2E6] [hereinafter *ADAWS Rulemaking*]; GOVERNOR’S REGUL. REV. COUNCIL, NOTICE OF FINAL RULEMAKING TITLE 12. NATURAL RESOURCES CHAPTER 15. DEPARTMENT OF NATURAL RESOURCES 4-6 (2024), https://www.azwater.gov/sites/default/files/2024-11/2024_11-25_Notice_of_FinalRulemaking-web.pdf [https://perma.cc/R7K5-UYAU].

97. 30 Ariz. Admin. Reg. 2625, 2625 (Aug. 23, 2024) (to be codified at Ariz. Admin. Code § 12-15-710).

98. GOVERNOR’S REGUL. REV. COUNCIL, *supra* note 96, at 3, 5.

99. *See Warren Tenney, Laying the Pathway to a More Secure Water Future*, AMWUA (Dec. 3, 2024), <https://www.amwua.org/blog/laying-the-pathway-to-a-more-secure-water-future> [https://perma.cc/4KBL-AS34].

Phoenix AMA,¹⁰⁰ especially as communities on the edge of the Valley, like Queen Creek, have grand plans for growth.¹⁰¹

B. Queen Creek's Water Management Approach

Queen Creek is a growing municipality in Arizona that is primarily groundwater dependent.¹⁰² Given its water constraints, the town has engaged in strategic, long-term thinking about its water supply to meet current demand and future growth.¹⁰³ Part of Queen Creek's strategy is to reduce the town's reliance on groundwater supplies by acquiring renewable water supplies.¹⁰⁴

In 2018, Queen Creek bought over 2,000 acre-feet per year of fourth-priority Colorado River water from Greenstone Resource Partners, LLC ("Greenstone") for twenty-four million dollars.¹⁰⁵ Greenstone is a water company supported by private investors, who in 2013 and 2014, through its subsidiary GSC Farm LLC, bought 485 irrigable acres of land in Cibola, Arizona.¹⁰⁶ Both ADWR and the United States Bureau of Reclamation

100. See Brooklee Han, *Phoenix Building Restrictions Squeeze Construction Firms and Agents*, HOUSINGWIRE (Aug. 16, 2023), <https://www.housingwire.com/articles/phoenix-building-restrictions-squeeze-construction-firms-and-agents> [https://perma.cc/BXU2-8WME] (noting homebuilders' opposition to the housing moratorium based on concerns that restricting growth harms housing affordability).

101. See *Demographics*, TOWN OF QUEEN CREEK, <https://investtheqc.com/demographics/> [https://perma.cc/R3KA-AX2U] (anticipating Queen Creek's population to grow by 76% in ten years).

102. Maritza Dominguez, *Queen Creek Wants to Be a Designated Water Supplier. Here's How It Plans to Do That*, AZCENTRAL, <https://www.azcentral.com/story/news/local/pinal/2023/05/01/queen-creek-to-begin-receiving-controversial-colorado-river-this-summer/70147937007> (May 1, 2023).

103. See *Water Transfer*, TOWN OF QUEEN CREEK ARIZ., <https://www.queencreekaz.gov/government/utilities/water/water-transfer> [https://perma.cc/9MU8-SN8N].

104. *Id.*

105. Maanvi Singh, 'Water Is More Valuable than Oil': The Corporation Cashing in on America's Drought, GUARDIAN (Apr. 16, 2024), <https://www.theguardian.com/environment/2024/apr/16/arizona-colorado-river-water-rights-drought> [https://perma.cc/UUH8-6QLX]. Fourth priority rights are among the most valuable rights on the Colorado River because, while still subject to curtailment in times of shortage, they are reliable and permanent enough for municipalities and industrial users to rely on them. Robert Glennon & Michael J. Pearce, *Transferring Mainstem Colorado River Water Rights: The Arizona Experience*, 49 ARIZ. L. REV. 235, 244 n.58 (2007); see also *Arizona's Colorado River Allocation*, ARIZ. DEP'T OF WATER RES., <https://www.azwater.gov/crm/colorado-river-allocation> [https://perma.cc/3D99-BDUV].

106. Singh, *supra* note 105. Greenstone first leased the land to farmers before selling the land's water rights to Queen Creek. *Id.*

(“Reclamation”) approved the transfer,¹⁰⁷ and Queen Creek began receiving the water in 2023.¹⁰⁸

The Cibola-Queen Creek transfer—also called the Greenstone Deal—has been extremely controversial, drawing resistance from rural Colorado River communities near Cibola.¹⁰⁹ Mohave, Yuma, and La Paz counties sued Reclamation over the transfer, resulting in an order that Reclamation conduct additional studies on the environmental impacts of the transfer.¹¹⁰

Nearby residents and local officials note the resemblance between the Greenstone Deal and the California Water Wars in Owens Valley.¹¹¹ The California Water Wars were a political conflict in the early twentieth century between the City of Los Angeles and agriculturalists in the Owens Valley.¹¹² Through a series of underhanded methods, including buying water rights from landowners in Owens Valley while holding themselves out as private citizens, city officials began diverting water through an aqueduct from Owens Valley for use in Los Angeles.¹¹³ The water diversions economically devastated Owens Valley and led to intense political conflict between Owens Valley residents and city developers.¹¹⁴ Cibola residents fear that, like Owens Valley, rural agricultural communities will bear the economic and environmental burdens of a distant city’s growth.¹¹⁵

107. *Cnty. of Mohave v. U.S. Bureau of Reclamation*, No. CV-22-08246-PCT-MTL, 2024 WL 706962, at *1–2 (D. Ariz. Feb. 21, 2024), *amended and vacated in part on reconsideration* by No. CV-22-08246-PCT-MTL, 2024 WL 3818611 (D. Ariz. Aug. 13, 2024).

108. *Water Transfer*, *supra* note 103.

109. See Hubble Ray Smith, *Mohave County Resists Water Rights Transfer to Central Arizona Project*, THE MINER, https://www.kdminer.com/mohave-county-resists-water-rights-transfer-to-central-arizona-project/article_32386eee-daad-5e04-93c6-1f6d42fec497.html (May 9, 2023).

110. *Cnty. of Mohave*, 2024 WL 706962, at *1–2, *17. Queen Creek continues to receive the water while Reclamation conducts additional studies. See *Cnty. of Mohave v. U.S. Bureau of Reclamation*, No. CV-22-08246-PCT-MTL, 2024 WL 3818611, at *5 (D. Ariz. Aug. 13, 2024).

111. Maanvi Singh, *A Firm Bought Up Land in a Tiny Arizona Town—Then Sold Its Water to a Faraway Suburb*, MOTHER JONES (Apr. 17, 2024), <https://www.motherjones.com/politics/2024/04/arizona-groundwater-rights-greenstone-resources-investigation> [https://perma.cc/J4P6-DEUM].

112. Kirstin Butler, *When California’s Water Wars Turned Violent*, PBS (Mar. 24, 2022), <https://www.pbs.org/wgbh/americanexperience/features/flood-desert-california-water-wars-violent> [https://perma.cc/V4V2-82F7].

113. *Id.*

114. See WILLIAM L. KAHRL, *WATER AND POWER: THE CONFLICT OVER LOS ANGELES WATER SUPPLY IN THE OWENS VALLEY* 387–90 (Univ. of Cal. Press 1983) (detailing stunted growth in Owens Valley because of Los Angeles’ public works development); see also Butler, *supra* note 112 (detailing economic devastation in Owens Valley caused by water diversions and an aqueduct bombing by local residents in 1924).

115. See Singh, *supra* note 111.

III. THE IMPACT OF GROWTH ON HOUSING AFFORDABILITY

Population growth not only impacts water management but also requires adaptations in land use management and housing policies. Local land use policies like zoning and building permitting determine what types of development occur where.¹¹⁶ Accordingly, these policies influence the location, availability, and affordability of housing because, by imposing restrictions or extra requirements on housing development, they can restrict housing supply and increase prices.¹¹⁷

The proliferation of single-family residential zoning in the United States has prioritized single-family homes over more affordable, denser housing like townhomes and apartment buildings, and has exacerbated urban sprawl.¹¹⁸ While urban sprawl may increase housing affordability and availability to compensate for restrictive single-family zoning, sprawl can negatively impact groundwater conservation efforts.¹¹⁹

As an alternative to sprawling, low-density development, smart growth prioritizes urban densification, environmental conservation, and strategic, long-term thinking to mitigate the social and environmental costs of urban expansion.¹²⁰

Smart growth principles can and have informed strategies to provide adequate, affordable housing in Arizona. From the Growing Smarter Acts of 1998 and 2000 to current efforts to expand and densify housing supply,

116. Zoning is inherent in a state's police power to protect public health and welfare. *See* Vill. of Euclid v. Ambler Realty Co., 272 U.S. 365, 386–90 (1926). States, including Arizona, delegate zoning and other urban planning powers to municipalities. *See* ARIZ. REV. STAT. ANN. § 9-462.01 (delegating the zoning power to municipalities); ARIZ. REV. STAT. ANN. § 9-441.02 (authorizing cities to promote housing development through contracts, leases, and revitalization projects). At the same time, states can retain a level of control over local land use policies by setting parameters for local government zoning or preempting certain local regulations that contradict statewide health and welfare. *See, e.g., infra* Section III.C. (discussing the Arizona legislature's recent bills setting parameters for municipal zoning and permitting).

117. VANESSA BROWN CALDER, CATO INST. POL'Y ANALYSIS, ZONING, LAND-USE PLANNING, AND HOUSING AFFORDABILITY 2–5 (2017), <https://www.cato.org/sites/cato.org/files/pubs/pdf/pa-823.pdf> [<https://perma.cc/S5QN-EAGH>]; *see* Katherine Davis-Young, (Un)Affordable: How City Zoning Regulations Impact Housing Affordability in Arizona, KJZZ (Sept. 2, 2019), <https://www.kjzz.org/2019-09-02/content-1148741-unaffordable-how-city-zoning-regulations-impact-housing-affordability-arizona> [<https://perma.cc/G4LP-2P9X>].

118. Allison Hanley, *Rethinking Zoning to Increase Affordable Housing*, NAHRO: J. HOUS. & CMTY. DEV. (Dec. 22, 2023), https://www.nahro.org/journal_article/rethinking-zoning-to-increase-affordable-housing [<https://perma.cc/246N-CRGJ>]; John Infranca, *Singling Out Single-Family Zoning*, 111 GEO. L.J. 659, 662 (2023).

119. *See infra* Section III.A.

120. *See* ARIZ. DEP'T. OF COMMERCE, ARIZONA SMART GROWTH SCORECARD: A TOOL FOR COMMUNITY SELF-ASSESSMENT 3 (2008) (identifying characteristics of smart growth policies).

Arizona policymakers have long sought to balance growth and housing affordability.

A. Affordable Housing and “Smart Growth”

Affordable housing is a top concern for Arizona voters, and with good reason: housing is becoming increasingly unaffordable in the Phoenix metro area.¹²¹ Between 2010 and 2024, the typical value of a home in Arizona almost doubled, and home prices increased by 91% when adjusted for inflation.¹²²

Affordable housing is housing for which the resident pays no more than 30% of his or her gross income.¹²³ In 2023, 44% of renters in the Phoenix metro area spent more than 30% of their income on housing.¹²⁴ From 2010 to 2024, the typical home price in Arizona almost doubled, and from 2010 to 2023, the state’s median gross rent increased by 36%.¹²⁵

Notably, “single-family homes comprise a majority of housing growth” in Arizona: 71% of approved building permits for homes in 2024 were for single-family homes.¹²⁶ As of 2023, 69% of homes in Arizona are single-family homes,¹²⁷ which contributes to unsustainable urban sprawl.¹²⁸

Many Arizona municipalities zone around half of their land for single-family use, restricting the amount of housing that can be developed on existing residential land.¹²⁹ Given the limitations imposed by single-family zoning, some believe that urban sprawl improves housing availability and

121. *Arizona Voters Fed Up with Soaring Housing Costs*, NOBLE PREDICTIVE INSIGHTS (Mar. 4, 2025), <https://www.noblepredictiveinsights.com/post/arizona-voters-fed-up-with-soaring-housing-costs> [<https://perma.cc/A9KC-GBX8>]; see COOK-DAVIS ET AL., *supra* note 86, at 4 (reporting that 28% of registered voters considered moving out of state due to expensive housing and only 13% felt housing was affordable in Arizona).

122. COOK-DAVIS ET AL., *supra* note 86, at 14.

123. *Untangling Housing Affordability & Groundwater Regulation*, *supra* note 16, at 2.

124. *Id.* at 3.

125. COOK-DAVIS ET AL., *supra* note 86, at 14, 21.

126. *Id.* at 9.

127. *Id.*

128. See Erin Barton, *Curbing Urban Sprawl to Make Cities More Sustainable*, ASU NEWS (Aug. 13, 2014), <https://news.asu.edu/content/curbing-urban-sprawl-make-cities-more-sustainable> [<https://perma.cc/Y4AC-SUE3>].

129. See ASHLEE TZIGANUK ET AL., ASU MORRISON INST. FOR PUB. POL’Y, EXCLUSIONARY ZONING: A LEGAL BARRIER TO AFFORDABLE HOUSING 2 (2022), https://morrisoninstitute.asu.edu/sites/g/files/litvpz841/files/exclusionary_zoning_legal_barrier_to_affordable_housing.pdf [<https://perma.cc/SY9R-PE75>].

affordability by increasing the number of housing options available to consumers.¹³⁰

However, low-density sprawl often does not increase housing affordability and has multiple adverse effects on communities.¹³¹ Low-density development can “skew” the production of new housing toward more expensive single-family units and away from more affordable, higher-density housing that is accessible to lower-income households.¹³² Additionally, incentivizing sprawl can focus attention away from pursuing infill development using existing infrastructure.¹³³

Sprawl also has adverse effects on human health and the environment.¹³⁴ Sprawl has negative effects on groundwater-dependent communities because it reduces the area available for aquifer recharge.¹³⁵ Low-density development increases energy and urban services costs while causing negative externalities like greater automobile emissions and fewer opportunities for walking and cycling.¹³⁶

Smart growth is a policy framework that addresses the challenges of urban sprawl.¹³⁷ Smart growth policies aim to increase population density, often through mixed-use development and walkable, interconnected neighborhoods.¹³⁸ Smart growth policy frameworks may also include limitations on growth outside of defined urban areas.¹³⁹ While smart growth principles may be applied at any jurisdictional level, this Comment focuses on state-level smart growth principles that inform the development of sustainable land use practices at the municipal level.

Similar to assured water supply programs, the specific provisions and implementation within a smart growth framework determine whether these policies actually reduce sprawl. Sometimes growth management policies

130. See Laura Kusisto, *What If Urban Sprawl Is the Only Realistic Way to Create Affordable Cities?*, WALL ST. J. (Sept. 14, 2016), <https://www.wsj.com/articles/BL-REB-36586>.

131. Arnold, *supra* note 38, at 4–5.

132. *Id.* at 4.

133. ELIZABETH REID-WAINSCOT ET AL., CTR. FOR BIOLOGICAL DIVERSITY, THE TRUE COST OF SPRAWL 7 (2024), <https://www.biologicaldiversity.org/programs/urban/pdfs/The-True-Cost-of-Sprawl-report.pdf> [<https://perma.cc/4246-MHKV>].

134. See A. Dan Tarlock & Sarah B. Van de Wetering, *Western Growth and Sustainable Water Use: If There Are No “Natural Limits,” Should We Worry About Water Supplies?*, 27 PUB. LAND & RES. L. REV. 33, 55 (2006).

135. *Id.*

136. *Id.*; David B. Resnik, *Urban Sprawl, Smart Growth, and Deliberative Democracy*, 100 AM. J. PUB. HEALTH 1852, 1853 (Oct. 2010), <https://pmc.ncbi.nlm.nih.gov/articles/PMC2936977> [<https://perma.cc/8JJ2-C37E>].

137. Resnik, *supra* note 136, at 1853.

138. Arnold, *supra* note 38, at 6.

139. Resnik, *supra* note 136, at 1854.

prove to be “little more than a sophisticated growth accommodation strategy,” merely channeling growth or mitigating the negative impacts of growth rather than restricting growth.¹⁴⁰ Arizona’s growth management policies are not exempt from this critique.

B. Arizona’s Growing Smarter Acts

Concern over managing growth is not a new concept in Arizona. In 1998 and 2000, the Arizona legislature passed a series of bills aimed at strengthening urban growth management coordination in the state.¹⁴¹ The 1998 Growing Smarter Act required that municipalities adopt, regularly readopt, and conform to their comprehensive plans.¹⁴² The 1998 Act also required that all comprehensive plans consider open space, growth areas, environmental planning, and cost of development as elements in the plan.¹⁴³

In the 2000 Growing Smarter Plus Act, the Arizona legislature added that municipalities must include a “water resources element” in their comprehensive general plan that identifies currently available water supplies and analyzes “how the future growth projected in the general plan will be adequately served by the legally and physically available water supply or a plan to obtain additional necessary water supplies.”¹⁴⁴

In addition to the legislative provisions, signing governor Jane Hull established the Growing Smarter Oversight Council (the “Council”) in 2001, a public-private partnership with the purpose of “monitoring the implementation” and effectiveness of the Growing Smarter Acts and “suggesting refinements” to their provisions.¹⁴⁵ The Council comprised representatives from key state agencies—including the Arizona Department of Environmental Quality and ADWR—who were to “include in [their] discussions the recommendations of and legislation resulting from other

140. Tarlock & Van de Wetering, *supra* note 134, at 54; see Resnik, *supra* note 136, at 1854.

141. Witherspoon, *supra* note 17, at 1; Ruesga, *supra* note 17, at 1071–72.

142. Witherspoon, *supra* note 17, at 3–4; ARIZ. REV. STAT. ANN. § 9-461.05(A).

143. Witherspoon, *supra* note 17, at 3; ARIZ. REV. STAT. ANN. §§ 9-461.05(D)(1)–(4).

144. Growing Smarter Plus Act, ch. 1, 2000 Ariz. Sess. Laws 3, 30 (4th Spec. Sess.) (codified in scattered sections). The 2000 amendments also permitted municipalities to designate “infill incentive districts,” with expedited zoning and processing procedures in areas needing redevelopment, and to impose service area boundaries beyond which they may establish “limits or conditions on publicly financed water, sewer, and street improvements that are necessary to service the needs created by the new development.” Ch. 1, 2000 Ariz. Sess. Laws at 18.

145. Ariz. Exec. Order No. 2001-02, Establishing the Growing Smarter Oversight Council, 7 Ariz. Admin. Reg. 932–33 (Feb. 16, 2001).

groups convened to discuss growth-related issues, including . . . the Groundwater Management Commission.”¹⁴⁶

One of the Council’s most prominent actions was to develop “Growing Smarter Guiding Principles for Arizona” in 2006, based on public input and lessons learned from the Growing Smarter Acts.¹⁴⁷ The Council received public input requesting (1) “[m]ore reliable, independent information and data on existing groundwater and surface water supplies,” (2) that local governments can permit or prohibit new development based on the long-term availability of water, and (3) that “[l]ocal community and land use planning . . . recognize and reflect the amount of available . . . water.”¹⁴⁸ Based on the input, the Council recommended integrating “[s]tate efforts to develop reliable, independent, objective, information regarding the available supply of water” in Arizona and “[a]ssur[ing] that the availability of clean, safe water is one of the criteria for evaluating all future land use and development plans in all areas of Arizona.”¹⁴⁹

While the Growing Smarter Acts enabled municipalities to place limits on growth, they did nothing to mandate that cities manage growth in any particular way.¹⁵⁰ A competing proposal from the Citizens for Growth Management (“CGM”) sought legislation that required—instead of permitted—urban growth boundaries to protect natural spaces, air, and water.¹⁵¹ The CGM proposal also required developers, rather than municipalities, to pay the cost of service extensions.¹⁵² Ultimately, the interests of developers outweighed the interests of environmentalists in CGM, resulting in the passage of the Growing Smarter Acts.¹⁵³

The Growing Smarter legislation prompted municipalities to engage in forward-looking development and growth management,¹⁵⁴ while allowing localities to control their own growth narrative. Newer municipalities like

146. *Id.*

147. *Proposed Growing Smarter Guiding Principles for Arizona*, ARIZ. GROWING SMARTER OVERSIGHT COUNCIL 1–3 (Apr. 6, 2006), <https://azmemory.azlibrary.gov/nodes/view/129943> [<https://perma.cc/9NKU-TGEU>].

148. *Id.* at 6–7.

149. *Id.* at 7. In 2008, Governor Janet Napolitano converted the Council into an “active citizens advisory board” and renamed it the Growth Cabinet Advisory Board. Ariz. Exec. Order No. 2008-05, 14 Ariz. Admin. Reg. 331 (Jan. 14, 2008). The Growth Cabinet sunsetted on March 31, 2011, and was not renewed by subsequent Governor Jan Brewer. *Id.*

150. Ruesga, *supra* note 17, at 1074.

151. *Id.* at 1064.

152. David S. Baron, *Initiative Gives Voters Control over Growth*, ARIZ. POL’Y CHOICES, Oct. 1998, at 99.

153. *See* Ruesga, *supra* note 17, at 1065–66.

154. Witherspoon, *supra* note 17, at 1–3.

Queen Creek and Buckeye celebrate population growth as a harbinger of economic prosperity.¹⁵⁵ Additionally, almost 78% of all housing units permitted since 2000 in Arizona have been single-family homes.¹⁵⁶ Since the proliferation of smart growth proposals at the turn of the century, Arizona's population has grown by over two million,¹⁵⁷ outpacing the amount of housing available to meet demand.¹⁵⁸

C. Current Efforts to Address Housing Affordability

The Arizona legislature took significant steps to address housing availability and affordability in 2023.¹⁵⁹ In 2023, Arizona was short over 130,000 available rental units for extremely low-income households, and 81% of extremely low-income households needed to spend over half of their income on housing costs and utilities.¹⁶⁰

During the 2024 legislative session, Governor Hobbs signed four bills that required municipalities to adopt regulations to increase the amount of affordable housing in their jurisdictions.¹⁶¹ House Bills 2720 and 2721 aimed to increase density in single-family residential areas.¹⁶² House Bill 2720 requires that municipalities allow accessory dwelling units on single-family homes.¹⁶³ House Bill 2721 requires that municipalities permit duplexes,

155. See *Southeast Valley Sees Unprecedented Growth*, QUEEN CREEK TRIB. (Dec. 18, 2023), https://www.queencreektribune.com/news/southeast-valley-sees-unprecedented-growth/article_cff8422e-9b95-11ee-80a9-57e69adf8cb4.html [<https://perma.cc/6JQ9-BD5E>]; *Choose Buckeye*, CITY OF BUCKEYE, <https://www.growbuckeye.com/pages/choose-buckeye> [<https://perma.cc/BD5H-E99A>].

156. COOK-DAVIS ET AL., ARIZ. RSCH. CEN. FOR HOUS. EQUITY & SUSTAINABILITY, STATE OF HOUSING IN ARIZONA 8 (Dylan Connor et al. eds., 2024), <https://morrisoninstitute.asu.edu/sites/g/files/litvpz841/files/2024-08/state-of-housing-in-arizona-mr.pdf> [<https://perma.cc/AT2S-2MZR>].

157. *Id.* at 1.

158. *Id.*; see *Arizona Gap Report 2023*, NAT'L LOW INCOME HOUS. COAL., <https://nlihc.org/gap/state/az> [<https://perma.cc/KUN7-BGGN>] (showing a deficit of affordable housing for low-income households).

159. See Jon Gabriel, Opinion, *Arizona Did Something Meaningful to Solve Its Housing Crisis? More of This Please*, AZCENTRAL (May 25, 2024), <https://www.azcentral.com/story/opinion/op-ed/2024/05/25/affordable-housing-arizona-bipartisan-law/73814086007> [<https://perma.cc/32DJ-WCTJ>].

160. *Arizona Gap Report 2023*, *supra* note 158.

161. Katherine Davis-Young, *4 New Arizona Housing Bills Were Just Signed into Law. Leaders Hope They'll Help Rising Costs*, KJZZ (Aug. 15, 2024), <https://www.kjzz.org/kjzz-news/2024-08-15/4-new-arizona-housing-bills-were-just-signed-into-law-leaders-hope-theyll-help-rising-costs> [<https://perma.cc/NTU3-5GJT>].

162. *Id.*

163. H.B. 2720, 56th Leg., 2d Sess. (Ariz. 2024); ARIZ. REV. STAT. ANN. § 9-461.18 (2025).

triplexes, fourplexes, and townhomes in lots zoned for single-family residential use within one mile of the municipality's central business district.¹⁶⁴

House Bill 2297 and Senate Bill 1162 sought to expedite permitting for housing through zoning reform.¹⁶⁵ House Bill 2297 requires municipalities to allow adaptive reuse or multifamily residential development in existing commercial, office, or mixed-use buildings.¹⁶⁶ Municipalities must expedite permitting for these projects and set aside at least 10% of the new dwellings for low- or moderate-income housing.¹⁶⁷ Senate Bill 1162 requires expedited municipal permitting processes to accelerate the completion of housing development projects.¹⁶⁸ The bill also requires that municipalities publish a housing needs assessment every five years that includes projected population growth and various metrics predicting unmet housing needs.¹⁶⁹

The recent housing legislation in Arizona provides greater state oversight into local zoning regulations with the goal of addressing housing availability and affordability. The bills also demonstrate that meaningful efforts to address housing affordability can occur without incentivizing urban sprawl or weakening the GMA.

IV. GROWTH: A WATER PROBLEM OR A LAND USE PROBLEM?

Although Arizona has statewide land use and water laws that purport to manage growth, both types of laws have done little more than channel or enable growth. The GMA is an essential tool to regulate groundwater management in Arizona, although its loopholes and recent modifications have eroded its efficacy with respect to achieving safe yield.

The Growing Smarter Acts provide municipalities with the tools to think strategically about land use and water planning, although their permissive provisions have done little to meaningfully restrain growth at the edges of the Valley. Given these limitations, Arizona needs a statewide, comprehensive land and water use management plan that complements the GMA and embraces smart growth principles.

164. H.B. 2721, 56th Leg., 2d Sess. (Ariz. 2024); ARIZ. REV. STAT. ANN. § 9-462.13 (2024).

165. See Davis-Young, *supra* note 161.

166. H.B. 2297, 56th Leg., 2d Sess. (Ariz. 2024); ARIZ. REV. STAT. ANN. § 9-462.10 (2025).

167. Ariz. H.B. 2297; § 9-462.10.

168. S.B. 1162, 56th Leg., 2d Sess. (Ariz. 2024); ARIZ. REV. STAT. ANN. § 9-462.11 (2024).

169. Ariz. S.B. 1162; ARIZ. REV. STAT. ANN. § 9-469 (2024). Municipalities submit the report to the Arizona Department of Housing, which compiles the reports for use by the Governor and the legislature. Ariz. S.B. 1162.

A. Limitations of Arizona's Water Laws

While the GMA linked water supply and land use planning in Arizona, loopholes and modifications weaken its ability to limit development in response to water supply. The GMA is compulsory in that it predicates the sale or lease of land on obtaining a CAWS or DAWS, but it lacks other criteria of effective assured water supply programs.¹⁷⁰ First and foremost, CAGRDR membership and ADAWS have weakened the GMA's stringency by allowing developers to rely on paper water rather than wet water in their assured water supply certifications.¹⁷¹ CAGRDR enrollment allows a development to use groundwater while contracting with CAGRDR to replenish the pumped groundwater.¹⁷² However, CAGRDR replenishment occurs throughout the Maricopa, Pima, and Pinal counties, without any assurance that its actions will evenly or equitably replenish its service members.¹⁷³

Additionally, a developer can demonstrate water availability by committing to acquire renewable supplies under ADAWS.¹⁷⁴ Thus, ADAWS has decreased the stringency of the GMA by allowing development to proceed with uncertain—rather than assured—water supplies. While the GMA links land use planning and water law in a way that was necessary at the time of its conception, ADAWS attenuates the connection between growth and supply by allowing growth to happen on the condition of future water acquisitions instead of current supply.¹⁷⁵ Under ADAWS, exurban growth continues to rely on groundwater rather than renewable supplies.¹⁷⁶ Thus, the GMA in its current form still promulgates growth despite water supply challenges.¹⁷⁷

Further, the GMA's provisions are not universal: groundwater management varies substantially between AMAs and areas outside these regulatory regions.¹⁷⁸ This lack of universality leaves certain homeowners without the consumer protections afforded to homeowners within AMAs.¹⁷⁹

170. See Davies, *supra* note 24, at 1280–92; *supra* Section I.C.

171. See Davies, *supra* note 24, at 1282–84; Avery et al., *supra* note 73, at 348–52; *ADAWS Rulemaking*, *supra* note 96.

172. Engel et al., *supra* note 23, at 195.

173. See Avery et al., *supra* note 73, at 351–52.

174. Warren Tenney, *Laying the Pathway to a More Secure Water Future*, AMWUA (Dec. 3, 2024), <https://www.amwua.org/blog/laying-the-pathway-to-a-more-secure-water-future>.

175. See GOVERNOR'S REGUL. REV. COUNCIL, *supra* note 96, at 5–8.

176. See *id.* at 5–8.

177. See *id.*

178. See Megdal et al., *supra* note 9, at 15–18.

179. See Davies, *supra* note 24, at 1284–85; Green & Castle, *supra* note 25, at 73.

Loopholes within the GMA also decrease its granularity and leave the door open for developers to subvert the consumer protection provisions in the GMA. The GMA only applies to subdivisions with six or more lots and does not apply to rental units.¹⁸⁰ The subdivision loophole has allowed developers in Rio Verde Foothills to create wildcat subdivisions, bypassing the assured water supply requirement and exacerbating single-family sprawl.¹⁸¹ This loophole has also created horizontal disconnects between Rio Verde Foothills and Scottsdale, as Scottsdale stretches its water supply to deliver water outside its boundaries.¹⁸²

Finally, the GMA's assured water supply requirement in AMAs does not apply to short-term rental units, which compose a large portion of current homebuilding in groundwater-dependent communities.¹⁸³ These weaknesses have contributed to continued groundwater struggles within AMAs.¹⁸⁴

Without strong guidance from legislation or state leadership, municipalities have taken water supply matters into their own hands. Queen Creek's efforts to procure renewable supplies may serve as an example for how individual municipalities and developers can adapt to institutional water stressors in central Arizona. Queen Creek's water procurement strategy decreases its reliance on groundwater and will allow it to expand based on real, wet water.¹⁸⁵ Its water purchase from Greenstone provided an additional layer of security for the city as the Phoenix AMA housing moratorium threatens future development.¹⁸⁶

However, transfers like the Greenstone Deal may shift development opportunities away from rural agricultural communities.¹⁸⁷ These water transfers create horizontal disconnects between rural Colorado River communities and urban communities in the Phoenix metro area.¹⁸⁸ The transfer of water away from rural agricultural communities like Cibola does

180. GOVERNOR'S WATER POL'Y COUNCIL, *supra* note 75, at 3; ARIZ. REV. STAT. ANN. § 32-2101(59)(a) (2024).

181. *See* Bittle, *supra* note 78.

182. *See* S.B. 1432, 56th Leg., 1st Reg. Sess. (Ariz. 2023); Gray, *supra* note 82. *See generally* Tarlock & Lucero, *supra* note 27, at 972–74 (explaining flaws in natural resource management resulting from the disconnect between water supply and land-use planning).

183. *See, e.g.,* KJZZ, *Arizona Homebuilders*, *supra* note 83 (describing rental units as a “workaround” to water supply requirements in Casa Grande housing development). *See also* AZBIGMEDIA, *Build-to-Rent Boom*, *supra* note 85 (listing Arizona cities with largest increases in build-to-rent housing).

184. *See* Phoenix AMA Groundwater Supply Updates, *supra* note 94.

185. *See* Water Transfer, *supra* note 103.

186. *See* Phoenix AMA Groundwater Supply Updates, *supra* note 94; Singh, *supra* note 111.

187. *See* Singh, *supra* note 111.

188. *See id.*; Tarlock & Lucero, *supra* note 27, at 972–74.

not only represent a transfer of physical water to central Arizona, but also a transfer of economic development opportunities.¹⁸⁹ Further, the ADAWS rulemaking appears to encourage transfers like the Greenstone Deal by requiring providers to procure renewable supplies.¹⁹⁰ While this one-off transfer is unlikely to create the economic devastation in Cibola that the City of Los Angeles created in Owens Valley, it raises similar social and ethical questions about what is the highest and best use of water.¹⁹¹ Better-integrated land use and water planning could holistically consider the role of these water transfers in the future of Arizona.

While visionary at the time of its passage, the nearly fifty-year-old GMA requires an update. First, lawmakers should prohibit lot-splitting that allows developers to skirt assured water supply requirements¹⁹² and require leaseholds to prove an assured water supply. Second, lawmakers should consider the long-term, statewide effects of an ADAWS rule that encourages water providers to seek renewable supplies. While ADAWS may encourage shifts toward greater use of renewable supplies and wastewater treatment, it may also incentivize transfers like the Greenstone Deal that have negative externalities in rural counties. Finally, the Phoenix AMA Groundwater Model shows that unmet demand for groundwater supplies is a real threat.¹⁹³ While ADAWS may spur the transition away from groundwater dependence, it may also drive the Phoenix AMA deeper into overdraft by permitting new development conditioned on a future promise.

Finally, the GMA has the most potential for innovation in its interconnectedness with other water and land use planning programs. The last forty years have proven that the GMA is not an adequate instrument through which to make important decisions about the state's growth: water policy alone cannot meaningfully account for the externalities of local decision-making.¹⁹⁴ Therefore, lawmakers must consider land use management policy in crafting a long-term strategy for Arizona's water management.

189. See Singh, *supra* note 111.

190. See GOVERNOR'S REGUL. REV. COUNCIL, *supra* note 96; *ADAWS Rulemaking*, *supra* note 96.

191. See *supra* Section II.B.

192. For an example of a policy to prevent wildcat developments, see GOVERNOR'S WATER POL'Y COUNCIL, *supra* note 75, at 2.

193. See *Phoenix AMA Groundwater Supply Updates*, *supra* note 94.

194. See *supra* Section I.A.

B. Limitations of Arizona's Land Use Laws

Like Arizona's water laws, the state's land use laws have a distinctive growth bias. The Growing Smarter Acts demonstrate that Arizona law has consistently preferred allowing growth subject to municipal preference over restricting growth subject to statewide prerogatives.¹⁹⁵

The Growing Smarter Acts merely require that municipalities update and conform to their comprehensive plans and consider criteria like water resources in their plans for development.¹⁹⁶ Because of the Acts' permissive qualities, they are not legitimate smart growth policies. They do nothing to reduce urban sprawl; in fact, the Acts stood in opposition to the competing CGM proposal that required urban growth boundaries.¹⁹⁷ Instead, the Growing Smarter Acts empowered—but did not require—municipalities to limit sprawl.¹⁹⁸ Thus, the Growing Smarter Acts are “little more than a sophisticated unlimited growth accommodation strategy.”¹⁹⁹ The program likely had widespread appeal precisely because it did not impose any limitations on growth.

The realities of Arizona's growth since 2000 runs contrary to smart growth's foundational principles. Smart growth espouses high-density development and limitations on sprawl.²⁰⁰ Since 2000, most of the new housing units permitted in Arizona have been single-family homes,²⁰¹ and satellite cities like Buckeye and Queen Creek have extended the metro area's boundaries.²⁰² One argument against restricting Phoenix's sprawl is that new homes can ameliorate the Valley's housing shortage and housing affordability problems.²⁰³ However, low-density and build-to-rent sprawl are not the only solutions to housing affordability and availability, and they can have adverse effects on people and the environment. Sprawl increases commute times and social isolation, as people live farther away from one another.²⁰⁴ Sprawl also reduces the area available for aquifer recharge, which harms the very groundwater-dependent communities that are causing the sprawl.²⁰⁵

195. See Witherspoon, *supra* note 17, at 13–14.

196. ARIZ. REV. STAT. ANN. § 9-461.05 (2024).

197. Ruesga, *supra* note 17, at 1064–65.

198. See § 9-461.05.

199. Tarlock & Van de Wetering, *supra* note 134, at 54.

200. See *supra* Section III.A.

201. COOK-DAVIS ET AL., *supra* note 156, at 1.

202. See *supra* note 155 and accompanying text.

203. See Han, *supra* note 100 and accompanying text.

204. See Resnik, *supra* note 136, at 1853.

205. See Tarlock & Van de Wetering, *supra* note 134, at 55.

Recent Arizona legislation has embraced aspects of smart growth by promoting densification and easing the restrictions of single-family zoning. For example, recently enacted House Bills 2720 and 2721 promote infill development,²⁰⁶ which is a smart growth strategy.²⁰⁷ By allowing accessory dwelling units on single-family homes and requiring municipalities to permit some types of multi-family housing on lots zoned as single-family residential, these bills ease zoning restrictions that prevent densification.²⁰⁸ Similarly, House Bill 2297 and Senate Bill 1162 ease permitting burdens for adaptive reuse projects and provide for expedited permitting of housing development.²⁰⁹ These bills do not only suggest that municipalities consider smart growth as an option—they require that municipalities implement smart growth principles.

Nevertheless, these bills do not compose a unified growth management plan: they are ad hoc attempts to fix the housing shortage. Because they are not part of a comprehensive legislative plan, the effects of these bills may be nullified by local actions that focus resources on sprawl.²¹⁰ Further, they do nothing to restrict growth, but rather channel growth to certain areas.²¹¹ Thus, Arizona's current land use and housing policies still lack a uniting vision that could guide Arizona toward a sustainable future.

C. Proposed Solutions

While the GMA and Growing Smarter Acts are not perfect, a comprehensive growth management act can complement and expand upon their innovations and purposes. The Growing Smarter Oversight Council's leadership²¹² demonstrates that increased collaboration between land use and water supply leaders can create unique solutions that unite these two sectors. These collaborative efforts can generate diverse, complementary policies that—like the assured water supply requirement in the GMA²¹³—address land use and water supply as interconnected issues.

206. See H.B. 2720, 56th Leg., 2d Reg. Sess. (Ariz. 2024); H.B. 2721, 56th Leg., 2d Reg. Sess. (Ariz. 2024).

207. See REID-WAINSCOAT ET AL., *supra* note 133, at 9.

208. See Ariz. H.B. 2720; Ariz. H.B. 2721.

209. H.B. 2297, 56th Leg., 2d Reg. Sess. (Ariz. 2024); S.B. 1162, 56th Leg., 2d Reg. Sess. (Ariz. 2024).

210. See Tarlock & Lucero, *supra* note 27, at 978 (noting that policy consistency is necessary to connect land, water, and growth).

211. See Tarlock & Van de Wetering, *supra* note 134, at 54.

212. See ARIZ. GROWING SMARTER OVERSIGHT COUNCIL, *supra* note 147, at 8–9.

213. ARIZ. REV. STAT. ANN. § 45-576 (2025); see *supra* Section I.C.

To create interconnected policies, there must be greater communication and policy innovation between water and land use experts and policymakers in Arizona. The groundwork exists to foster this collaboration based on the Growing Smarter Oversight Council and its previous recommendations.²¹⁴ The Governor should re-establish a commission focused on growth, but with a greater focus on water supply.

This commission should unite water and land use leaders at the state and local level, including municipalities, state land and water agencies, and private stakeholders. These leaders should focus on and expand upon the stewardship recommendations of the Growing Smarter Oversight Council: getting better data on water supplies and ensuring that local and community land use planning recognizes and reflects the amount of available water.²¹⁵ The commission should also monitor the effect of urban growth on housing affordability, incorporating data from the housing needs assessment mandated by Senate Bill 1162.²¹⁶

From the efforts of this commission, state leaders can create complementary land use and water policies. One challenge in uniting land use and water planning is that land use decisions are often made at the local level, while water management decisions are made at the state level.²¹⁷ To unite these disconnects, the state should assume a greater role in land use management decisions.

The Arizona legislature seems amenable to greater intervention in municipal zoning processes, as evidenced by its recent actions to expedite municipal permitting processes and expand multi-unit housing in single-family zones.²¹⁸ It may be difficult to achieve local consensus and tailor statewide land use prerogatives to local preferences. However, some state intervention is required to reduce horizontal disconnects between communities as land and water resources are stretched tighter due to drought and long-term aridification.

Policy diversity can ensure that communities have a variety of strategies to address the complex, intertwined relationships between growth, housing availability, and water supply.²¹⁹ Policies to incentivize water efficiency and use renewable supplies must be balanced with water equity considerations. Policies to augment housing supply in existing urban spaces must be balanced

214. ARIZ. GROWING SMARTER OVERSIGHT COUNCIL, *supra* note 147.

215. *Id.* at 6–7.

216. S.B. 1162, 56th Leg., 2d Sess. (Ariz. 2024).

217. Tarlock & Lucero, *supra* note 27, at 972.

218. *See supra* Section III.C.

219. *See* Arnold, *supra* note 43, at 417–19.

with the preservation of historic neighborhoods. These considerations include financial access to wastewater treatment and procurement of renewable supplies from rural Arizona.

Currently, municipalities wanting to augment their water supplies through water transfers like the Greenstone Deal must independently weigh the benefits and risks involved in these transfers.²²⁰ Legislators should give additional guidance to municipalities by crafting policies that enable creative water solutions while acknowledging the potential negative externalities of growth and water procurement strategies on communities in rural Arizona.

Additionally, policies that target municipal zoning practices must balance the benefits of consistent statewide practices with the agency of municipalities to make their own land use decisions. The bills signed by Governor Hobbs in 2024 addressing housing availability and affordability include a mix of mandatory and permissive municipal actions.²²¹ However, these land use solutions still occur on an ad hoc basis, as each municipality makes its own decisions about water supply, housing, and growth. These solutions do not acknowledge that localities within the Phoenix AMA rest upon the same aquifers, and that each community's water and land use strategies have ripple effects across the Valley. This is why ad hoc solutions are not enough.

Growth restrictions are often political non-starters: policies that enable or channel growth are much more palatable than those that draw hard limits on development.²²² However, policy diversity can give localities a variety of tools available to address their own futures, while ensuring that Arizona is headed down a common path of land and water sustainability.²²³ While policy diversity is essential, legislators must ensure that the policies are directed toward a common goal and not working against one another. That is why good data and greater collaboration are the keys to unified, coordinated decision-making about Arizona's land and water future.

V. CONCLUSION

At various inflection points in Arizona's history, leaders have come together to address the effects of rapid population growth on land use,

220. *See supra* Section II.B. (describing the controversial nature of the Greenstone Deal and resulting litigation).

221. H.B. 2720, 56th Leg., 2d Sess. (Ariz. 2024); H.B. 2721, 56th Leg., 2d Sess. (Ariz. 2024); H.B. 2297, 56th Leg., 2d Sess. (Ariz. 2024); Ariz. S.B. 1162.

222. *See* Tarlock & Van de Wetering, *supra* note 134, at 54; Ruesga, *supra* note 17.

223. *See* Arnold, *supra* note 43.

housing affordability, and water supply. Another inflection point is fast approaching: housing affordability has become a central issue for many Arizonans and groundwater management has resurged as a major limitation on development. While it is useful to build upon past Arizona movements that addressed groundwater overdraft and land use, it is also time to acknowledge that siloed thinking with respect to growth, water, and land have led to lackluster results. In an arid and ever-heating environment, Arizonans deserve access to affordable housing and water security, without having to compromise on either one.