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ASSURED WATER SUPPLY LAWS IN THE SUSTAINABILITY CONTEXT

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I. INTRODUCTION

Will environmental law become sustainability law? For more than a decade, calls for such a transformation have been consistent—and frequent.[1] Still, movement in this direction has been slow and incremental.[2] This raises a dual inquiry: Can environmental law become sustainability law and, if so, *how best* do we begin making that transition?

Tackling these issues with any comprehensiveness is beyond the scope of this Symposium.[3] But addressing the questions in a more specific context may provide some illumination for the broader inquiry. Although environmental law clearly has not become something entirely different over the past fifteen years,[4] recent reforms have brought some legal change rooted as much in sustainability as in traditional environmental protection.[5]

One of the foremost examples is the mounting adoption of assured water supply laws: state and local mandates that compel developers to prove they have sufficient water available before they may proceed with

[1] *See generally, e.g.*, WILLIAM R. BLACKBURN, THE SUSTAINABILITY HANDBOOK: THE COMPLETE MANAGEMENT GUIDE TO ACHIEVING SOCIAL, ECONOMIC AND ENVIRONMENTAL RESPONSIBILITY (2007); NATHALIE J. CHALIFOUR ET AL., LAND USE LAW FOR SUSTAINABLE DEVELOPMENT (2006); DOUGLAS FISHER, THE LAW AND GOVERNANCE OF WATER RESOURCES: THE CHALLENGE OF SUSTAINABILITY (2010); MARIE-CLAIRE CORDONIER SEGGER & ASHFAQ KHALFAN, SUSTAINABLE DEVELOPMENT LAW: PRINCIPLES, PRACTICES, AND PROSPECTS (2005); John C. Dernbach, *Toward a National Sustainable Development Strategy*, 10 BUFF. ENVTL. L.J. 69, 83 (2003).

[2] *E.g.*, John C. Dernbach, *Making Sustainable Development Happen: From Johannesburg to Albany*, 8 ALB. L. ENVTL. OUTLOOK J. 173, 182 (2004); Nancy P. Spyke, Heeding the Call: Making Sustainability a Matter of Pennsylvania Law, 109 PENN ST. L. REV. 729, 729 (2005).

[3] For more on this larger question, *see, e.g.*, sources cited *supra* note 1.

[4] For suggestions for how environmental law should change, *see generally, e.g.*, DANIEL A. FARBER, ECO-PRAGMATISM: MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD (1999); Robert W. Adler, *The Supreme Court and Ecosystems: Environmental Science in Environmental Law*, 27 VT. L. REV. 249 (2003); James D. Fine & Dave Owen, *Technocracy and Democracy: Conflicts Between Models and Participation in Environmental Law and Planning*, 56 HASTINGS L.J. 901 (2005); Eric T. Freyfogle, *The Ethical Strands of Environmental Law*, 1994 U. ILL. L. REV. 819 (1994); Eileen Gauna, The Environmental Justice Misfit: Public Participation and the Paradigm Paradox, 17 STAN. ENVTL. L.J. 3, 17-31 (1998); John R. Nolon, *In Praise of Parochialism: The Advent of Local Environmental Law*, 26 HARV. ENVTL. L. REV. 365 (2002); A. Dan Tarlock, *The Nonequilibrium Paradigm in Ecology and the Partial Unraveling of Environmental Law*, 27 LOY. L.A. L. REV. 1121, 1140-44 (1994).

[5] Spyke, *supra* note 2, at 729.

new subdivision, commercial, or other residential construction.[6] Despite the multiple reasons given for these measures' adoption,[7] assured supply laws point heavily toward sustainability. They seek to ensure that land development proceeds in a way that can continue over time because it does so within resource limits—that is, they strive to facilitate continued economic progress, but a kind of progress that does not harm future generations, at least from a water perspective.

Certainly there are reasons to reorient environmental law toward sustainability.[8] "Tailoring law more closely to the patterns of human behavior, administration, and enforcement will be more efficient, and environmental law will dovetail with other areas of law, thus strengthening respect for, and the effectiveness of, the law."[9] Sustainability, in other words, offers something that traditional environmental law's focus on public health protection and risk mitigation does not. Sustainability offers a long view that attempts to balance—and synthesize—economic development, environmental protection, and equity.[10] Sustainability holds the promise of more complete governance.

It is this kind of more holistic regulation that assured water supply laws attempt to achieve. They seek to bring land use law and water planning closer together, to coordinate smart use of resources via more efficient environmental regulation. "Land use regulation and planning have taken an 'environmental turn': a pervasive and inescapable attention to the impact of land use and land development on the natural environment."[11] Assured supply laws are very much a part of this trend.

Despite, however, the growing emergence of these laws, and the burgeoning scholarship on their operation and design,[12] the question of

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[6] 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 (2007).

[7] *See infra* Part I.B.

[8] *See* sources cited *supra* note 1.

[9] J. William Futrell, *Law of Sustainable Development*, ENVTL. F., Mar./Apr. 1994, at 16.

[10] *E.g.*, J.B. Ruhl, *Sustainable Development: A Five-Dimensional Algorithm for Environmental Law*, 18 STAN. ENVTL. L.J. 31, 40 (1999).

[11] 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, 1 (Craig Anthony (Tony) Arnold ed., 2005).

[12] *See, e.g.*, WET GROWTH: SHOULD WATER LAW CONTROL LAND USE?, *supra* note 11; Craig Anthony (Tony) Arnold, *Is Wet Growth Smarter Than Smart Growth?: The Fragmentation and Integration of Land Use and Water*, 35 ENVTL. L. REP. 10,152 (2005); Davies, *supra* note 6; Adam Strachan, Note, *Concurrency Laws: Water as a Land use Regulation*, 21 J. LAND, RESOURCES & ENVTL. L. 435 (2001); Christine A. Klein et al., *Modernizing Water Law: The Example of Florida*, 61 FLA. L. REV. 403(2009); 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 & RESOURCES L. REV. 33 (2006); A. Dan Tarlock & Lora A. Lucero,

whether assured supply laws actually, rather than only conceptually, advance sustainability remains.

This Article takes an initial run at that question. By juxtaposing five western[13] states' existing assured supply laws, it provides a preliminary assessment of whether, and how, assured supply laws can best promote sustainability—and, by extension, make at least one area of environmental law more like sustainability law. The Article reaches three principal conclusions. First, it finds that, as they appear to, assured supply laws in fact promote sustainability. Second, the extent to which assured supply laws likely promote sustainability greatly varies by state, because these laws' policy designs also depend on the state of enactment. Finally, additional work is needed to provide a more concrete assessment of how effective assured supply laws are, both in general and in the context of sustainability.

The Article proceeds in three parts. Part I briefly introduces assured supply laws, including how they function, rationales offered for their adoption, and their apparent benefits and costs. Part II places these laws in a sustainability context, attempting to reformulate how we think of assured supply laws from a sustainability, rather than a traditional environmental, vantage. Part III concludes by contrasting five state regimes through the lens of a possible model for sustainability law. Part III shows that assured supply design very much matters for how well the laws promote sustainability.

II. ASSURED WATER SUPPLY LAWS

Assured water supply laws are relatively new to the environmental regulatory scene. Arizona was the first to take the leap, when it adopted its Groundwater Management Act in 1980.[14] It took time, but other states

Connecting Land, Water, and Growth, 34 URB. LAW. 971, 973 (2002); Ryan Waterman, Comment, *Addressing California's Uncertain Water Future by Coordinating Long-Term Land Use and Water Planning: Is a Water Element in the General Plan the Next Step?*, 31 ECOLOGY L.Q. 117, 190–91 (2004).

[13] By "western," I mean states generally considered relatively arid and west of the Continental Divide. Most of these use prior appropriation doctrine to govern water rights, or some other property-based system of water governance. Most, too, have assured supply laws. *See infra* note 17.

[14] Groundwater Management Act, 1980 Ariz. Laws 4th Spec. Sess., ch. 1 (codified as amended at ARIZ. REV. STAT. ANN. §§ 45-401 to -704 (Westlaw 2010). For more on this enactment, *see generally* Desmond Connall, *A History of the Arizona Groundwater Management Act*, 1982 ARIZ. ST. L.J. 313; Robert Jerome Glennon, *"Because That's Where the Water Is": Retiring Current Water Uses To Achieve the Safe-Yield Objective of the Arizona Groundwater Management Act*, 33 ARIZ L. REV. 89 (1991); Jon L. Kyl, *The 1980 Arizona Groundwater Management Act: From Inception to Current Constitutional Challenge*, 53 U. COLO. L. REV. 471 (1982).

followed. California's passage of a rather rigorous assured supply requirement in 2001 has been perhaps the most hailed of these state enactments,[15] both for its wide application in such a populous state and for its strengthening of what many already saw as a de facto assured supply requirement under California's general environmental review statute.[16] By 2006, nearly two thirds of the contiguous states west of the Missouri River had adopted some form of assured water supply requirement.[17] Western states were not alone. Some eastern jurisdictions also began adopting these laws,[18] and where states did not take action, often localities did.[19]

At one level, assured supply laws can be seen as attempting to correct a market failure.[20] Developers know, or should know, whether a given property has sufficient water available to serve the buyers (homeowners, business owners) to whom they are selling the property. Those purchasers, on the other hand, may not. It may work differently elsewhere, but the common assumption in the United States is that real

[15] *See* S.B. 221, ch. 642, 2001 Cal. Stat. 88; *see also* Jamey Volker, Note, *Water Supplies Finally Take Center Stage in the Land Use Planning Arena*, 35 ECOLOGY L.Q. 573 (2008); Waterman, *supra* note 12.

[16] Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219 (Ct. App. 2005); Santa Clarita Org. for Planning the Env't v. County of L.A., 106 Cal. App. 4th 715, 720 (Ct. App. 2003); Planning & Conservation League v. Dep't of Water Res., 83 Cal. App. 4th 892 (Ct. App. 2000); Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal. App. 4th 182, 194-95 (Ct. App. 1996). The California Supreme Court's decision in Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412, 428-29 (2007), changed this presumption.

[17] Ellen Hanak & Margaret K. Browne, *Linking Housing Growth to Water Supply: New Planning Frontiers in the American West*, 72 J. AM. PLAN. ASS'N 154, 154 n.1 (2006) ("[A]ll but 6 of the 17 states west of the Missouri River in the continental U.S. (Idaho, Kansas, Nebraska, North Dakota, Oregon, and Utah) had some form of state requirement linking subdivision approval to [a] demonstration of adequate water supplies."). A more recent survey showed that nine of the eleven contiguous states west of the continental divide have assured supply laws, the exceptions being Idaho and Utah. BOBBIE KLEIN & DOUGLAS KENNEY, THE LAND USE PLANNING, WATER RESOURCES AND CLIMATE CHANGE ADAPTATION CONNECTION: CHALLENGES AND OPPORTUNITIES (2009), *available at* www.colorado.edu/water_management_and_drought/Land%20use%20water-%20final.pdf.

[18] Mary Jane Angelo, *Integrating Water Management and Land Use Planning: Uncovering the Missing Link in the Protection of Florida's Water Resources?*, 12 U. FLA. J.L. & PUB. POL'Y 223, 235-41 (2001); Kevin M. O'Brien & Barbara Markham, *Tale of Two Coasts: How Two States Link Water and Land Use*, 11 NAT. RESOURCES & ENV'T 3, 5-7 (1996) (discussing Florida); Strachan, *supra* note 12, at 438-42 (addressing Maryland and Vermont). For an initial assessment of whether assured supply laws can work in the context of eastern (i.e., riparian and regulated riparian) water law, *see* Lincoln L. Davies, *East Going West? The Promise of Assured Supply Laws in Modern Real Estate Development*, 43 JOHN MARSHALL L. REV. 319 (2010).

[19] John Roszkowski, *Planning for Growth with Water in Mind*, ELM LEAVES (Elmwood Park, Ill.), July 26, 2006; David Snyder, *A New Direction in Water Law: Frederick Ordinance Resembles Western U.S. Approach*, WASH. POST, Sept. 23, 2002, at B1.

[20] Davies, *supra* note 6, at 1231.

property purchases for habitation come with a sufficient, clean, and safe water stock.[21] The assured supply law thus attempts to ensure that information access is equal in the market, compelling developers to meet the everyday consumer's expectation of sufficient water or, at the least, give the customer notice that the usual expectation does not apply.[22]

From another perspective, the assured supply law is less market-correcting than planning-perfecting. Land use regulation and water planning have been notoriously disjointed historically.[23] Because jurisdiction for each of these activities typically is located in separate agencies, land use regulation and water planning often are at odds:

> [P]lanning and regulatory functions are so compartmentalized that the planning department might be preparing the comprehensive [land use] plan . . . while the . . . utility division is preparing the water utility extension plan. One plan advocates infill and limiting sprawl . . . while the other anticipates where the new water and sewer lines will be extended to accommodate growth . . . . More often than not, none of these plans are connected.[24]

Yet because land and water use are intimately connected, this planning disconnect is problematic.[25] Land use decisions inherently impact both water quality and availability, just as water supply should deeply inform smart land development. Assured supply laws attempt to help put these activities back together. They force land planners to consider water before moving forward.[26]

There is, however, yet another prism through which assured supply laws can be viewed. It is the prism of ultimate objectives. That is, regardless of whether assured supply laws are seen as improving markets or bettering planning, to what end? Why are assured supply laws seeking these corrections? Is it simply to improve governance, or is there a broader normative aim—sustainability, perhaps? The next Part dissects assured supply laws in an attempt to address this inquiry of whether assured supply laws promote sustainability, or sustainability law. First,

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[21] *See infra* note 29 and accompanying text.

[22] Davies, *supra* note 6, at 1231.

[23] *E.g.*, A. Dan Tarlock & Lora A. Lucero, *Connecting Land, Water, and Growth*, 34 URB. LAW. 971, 972 (2002); A. Dan Tarlock & Sarah B. Van de Wetering, *Growth Management and Western Water Law: From Urban Oases to Archipelagos*, 5 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 163, 167 (1999).

[24] Tarlock & Lucero, *supra* note 23, at 973-74.

[25] Arnold, *supra* note 11; Tarlock & Lucero, *supra* note 23, at 972; Tarlock & Van de Wetering, *supra* note 23, at 167.

[26] Davies, *supra* note 6, at 1233-34.

however, a brief assessment of these laws' function is in order.

A. MECHANICS

Assured supply laws' function is straightforward. The core mechanism is a requirement that there be proof of an adequate water supply before a proposed development—generally a subdivision—may receive regulatory approval. Typically, the way this works is that either the developer itself, or the water provider from which the development will take service, will assess the incremental water demand needed by the development and then certify to the land use agency whether there is a sufficient water supply to meet that demand. California's law is representative. "The legislative body of a city or county . . . shall include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available."[27] Colorado's requirement is similar. It commands: "Subdivision regulations . . . shall require subdividers to submit . . . data, surveys, analyses, studies, plans, and designs . . . of the following items: . . . Adequate evidence that a water supply that is sufficient in terms of quality, quantity, and dependability will be available to ensure an adequate supply of water for the type of subdivision proposed."[28]

Although facially uncomplicated, these requirements are notable for at least two reasons. First, by mandating water availability by statute, assured supply laws elevate the importance of water as a resource. Prior to assured supply laws' emergence, common law decisions in many states already imposed an obligation on property sellers that mandated, at least for homes, sufficient water as part of the implied covenant of habitability.[29] In *Elderkin v. Gaster*, for instance, perhaps the leading case on the question, the Pennsylvania Supreme Court ruled that a homebuilder's failure to construct a well providing a safe and adequate water supply breached its obligation to sell only homes "fit for the purpose intended—habitation."[30] Citing the same market-correcting rationale that assured supply laws invoke—that "the builder[] is manifestly in a better position than the normal [purchaser] to guard

[27] CAL. GOV'T CODE § 66473.7(b)(1) (Westlaw 2010).

[28] COLO. REV. STAT. § 30-28-133(3)(d) (Westlaw 2009).

[29] Mazurek v. Nielsen, 42 Colo. App. 386, 387 (Ct. App. 1979); Lyon v. Ward, 28 N.C. App. 446, 449-50 (Ct. App. 1976); McDonald v. Mianecki, 159 N.J. Super. 1, 5-19 (Super. Ct. App. Div. 1978); Jeanguneat v. Jackie Hames Constr. Co., 576 P.2d 761, 762 (Okla. 1978); Willard v. Parsons Hill P'ship, 178 Vt. 300, 310-12 (2005).

[30] Elderkin v. Gaster, 447 Pa. 118, 129-30 (1972).

against defects in the home site"[31]—the court ruled: "While we can adopt no set standard for determining habitability, it goes without saying that a potable water supply is essential to any functional living unit; without drinkable water, the house cannot be used for the purpose intended."[32] It may be obvious that homes cannot function without sufficient water, but the assured supply law elevates that truism to another level. Rather than relying on the common law, which by its nature is subject to change depending on the circumstance, a statutory assured supply requirement renders the expectation universal. And, that effect should not only send a clearer signal, it should foster more efficient governance. Rather than leaving it to judges to address the problem of insufficient water *ex post facto*, the codified assured supply law seeks to prevent the problem from occurring in the first place, *ex ante*.[33]

Second, no matter how straightforward the assured supply mechanism may appear, complications abound nonetheless. Questions of what "assured" means, how to measure it, how long the assurance must last, who must do the assuring, and so on inevitably make the basic assured supply law more complex than it at first seems.[34] Take a single example. Contrast even two states' definition of an "assured," or "adequate," water supply. California defines an adequate water supply as "the total water supplies" needed by the development; it must be "available during normal, single-dry, and multiple-dry years within a 20-year projection."[35] Washington, by contrast, denominates either "a water right permit" or "a letter from an approved water purveyor" or "another form sufficient to verify the existence of an adequate water supply" as satisfying its requirement.[36] If even these two states differ on points as basic as whether mere paper water rights constitute sufficient proof of water availability, or if instead a long-term analysis is necessary, the diversity of possibilities for designing assured supply requirements should be obvious.

Indeed, at times, the prevalence of exceptions to assured supply laws may seem their most unifying feature. Without fail, assured supply laws limit themselves. Arizona's law applies only in dense metropolitan areas; rural development is subject only to a lighter-handed, halfway

[31] *Id.*

[32] *Id.*

[33] Cf. Davies, *supra* note 6, at 1271-72 (noting the potential efficiencies that assured supply laws offer by teeing up potential water disputes sooner than later).

[34] *See id.* at 1279-91.

[35] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[36] WASH. REV. CODE § 19.27.097(1) (Westlaw 2010).

mandate.[37] California's statute sweeps in only large subdivisions—500 homes or more.[38] Colorado's law is designated only for subdivisions and thus does not apply to many types of residential development, much less commercial ventures.[39]

In short, diversity is the rule, not the exception, for assured supply law design. There are nearly as many policy differences in assured supply laws as there are possible traits. No doubt, this is at least in part due to the variety of reasons states choose to adopt these laws.

B. RATIONALES

Assured supply laws are marked by their multiplicity of goals. Although the most common rationale for their adoption is to limit, or at least direct, growth, numerous other motives have spurred these laws' enactment.

Most fundamentally, assured supply laws have been put forward as a modern land use regulation—part of the "smart growth" movement's effort to stall suburban sprawl and its myriad negative environmental effects.[40] The idea is that if development cannot occur without water, it will be reined into areas that have sufficient resources, making development less environmentally detrimental. This is the so-called "wet growth" justification for assured supply laws, the idea that "growth and land use should be sustainable with respect to aquatic ecosystems and water resources."[41] It is the most frequently given reason for adopting these laws. Professor Tony Arnold explains: "Several developments in linking land and water reflect an inchoate but real wet growth agenda. Localities are increasingly considering growth's impacts on water

[37] ARIZ. REV. STAT. ANN. §§ 45-108, 32-2181(F) (Westlaw 2010); *see also* Shaun McKinnon, *State's Rural Growth Taxing Water Supplies*, ARIZ. REPUBLIC, June 26, 2005, at 1A; Shaun McKinnon, *Developers Cashing in on Weak Water Laws*, ARIZ. REPUBLIC, June 27, 2005, at 1A.

[38] CAL GOV'T CODE § 66473.7(a)(1) (Westlaw 2010). In limited circumstances, the provision also applies to potentially smaller subdivisions, because it includes subdivisions where the serving water system has fewer than 5,000 connections but the proposed development increases the system's connections by ten percent or more. *Id.*

[39] *See* COLO. REV. STAT. § 30-28-133 (Westlaw 2010).

[40] *See* Arnold, *supra* note 11, at 3-7. For more on the smart growth movement, *see generally* ROBERT H. FREILICH, FROM SPRAWL TO SMART GROWTH: SUCCESSFUL LEGAL, PLANNING, AND ENVIRONMENTAL SYSTEMS (1999); Joel B. Eisen, *Brownfields Development: From Individual Sites to Smart Growth*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10,285 (2009); John R. Nolon, *Golden and Its Emanations: The Surprising Origins of Smart Growth*, 23 PACE ENVTL. L. REV. 757 (2006); Ed Bolen et al., *Smart Growth: A Review of Programs State by State*, 8 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 145 (2002).

[41] Arnold, *supra* note 11, at 8.

supplies and water quality in their general or comprehensive planning documents . . . and decisions to approve or deny development proposals."[42] Assured supply laws are one of the primary ways governments are implementing this "wet" approach to managing growth.

Assured supply law advocates give other reasons for adopting these laws, too. Some suggest that assured supply laws are necessary to ensure that a sufficient resource infrastructure is in place for development going forward. Sheila Kuehl, sponsor of the California law, cited this as a reason for action on the occasion of that law's passage: "Suddenly, [after the western energy crisis,] it became clear to us that there may be other things we took for granted. It was even worse with water because we can't simply build a new plant and manufacture water like electricity."[43] The idea is that a requirement as specific as demonstrating an actual, physical water supply before construction may begin puts regulatory teeth into general municipal planning efforts. This might be termed the "resource concurrency" view of assured supply laws, because just as new development must have sufficient electrical, sewage, and the other physical utilities commonly expected for modern construction, assured supply laws require the natural resources to be available as well.[44] It is a planning-centric vision of the laws.[45]

A less frequently touted, but nevertheless clear, rationale for assured supply laws is their consumer protection potential. This reasoning relies on the "market correction" view of assured supply laws, the principle that a requirement of sufficient water levels the playing field for developers and purchasers. In the process of adopting California's law, legislators noted the possibility of this effect. The proposed law, it was

[42] *Id*. at 10-11.

[43] Tracey Kaplan, New *Law Links Water Supply to OK of Large Housing Tracts*, SAN JOSE MERCURY NEWS, Oct. 10, 2001, at 19A (quoting Kuehl); *see also* ASSEMB. COMM. ON WATER, PARKS AND WILDLIFE, S.B. 221 ANALYSIS, Reg. Sess., at 6 (Cal. 2001), *available at* www.leginfo.ca.gov/pub/01-02/bill/sen/sb_02010250/sb_221_cfa_20010625_153332_asm_comm-.html ("California's population will double by 2040. Supporters contend that approving new development faster than new water supplies are developed puts existing customers at risk during future droughts.").

[44] Davies, *supra* note 6, at 1245; Strachan, *supra* note 23, at 438-42. For more on concurrency laws generally, *see*, for instance, Thomas G. Pelham, *Restructuring Florida's Growth Management System: Alternative Approaches to Plan Implementation and Concurrency*, 12 U. FLA. J.L. & PUB. POL'Y 299 (2001); Thomas M. Walsh & Roger A. Pearce, *The Concurrency Requirement of the Washington State Growth Management Act*, 16 PUGET SOUND L. REV. 1025 (1993); S. Mark White & Elisa L. Paster, *Creating Effective Land Use Regulations Through Concurrency*, 43 NAT. RESOURCES J. 753 (2003).

[45] *See*, *e.g.*, Waterman, *supra* note 12, at 190-91; AM. PLANNING ASS'N, POLICY GUIDE ON SMART GROWTH' (Apr. 15, 2002), *available at* www.planning.org/policy/guides/pdf/smart-growth.pdf.

said, would "force[] local officials to match the desires of private investors with the requirements of public policy"[46]—that is, it would prevent developers from taking advantage of unsuspecting homebuyers, just as it would stop the subtle subsidization of growth by foisting the water costs of new development onto existing homeowners.[47]

In reality, of course, advocacy for assured supply laws is not monolithic. Multiple reasons are offered for, and against, every assured supply law proposal. This is natural. Assured supply laws promise many benefits. Whether they actually deliver on that promise, however, is more difficult to parse.

C. BENEFITS AND COSTS

Scholarship addressing assured supply laws' benefits and costs is sparse. Especially on the quantitative front, there is precious little evidence of assured supply performance. The landmark study *Water for Growth: California's New Frontier*, completed by the Public Policy Institute of California in 2005, is one exception that does cut a wide swath.[48] Still, it is limited to California and thus does not extend to the many other jurisdictions that have adopted assured supply laws of their own. Given the breadth of policy choices states have when adopting these laws, uniformly extrapolating the conclusions of this California study to all other assured supply jurisdictions is a tenuous proposition.[49] In a 2007 article, I attempted to synthesize existing quantitative and qualitative data to assess whether assured supply laws deliver any benefits and, if so, whether those benefits are offset by assured supply laws' potential costs.[50] This too, however, left gaps, precisely because comprehensive data outside California is scarce. The conclusions were directional, not definitive.[51]

Assured supply laws appear to have five key benefits. First, assured supply laws in fact deliver some consumer protection benefits, because they have stopped developments lacking water and, in other cases, have

[46] S. LOCAL GOV'T COMM., S.B. 221 ANALYSIS, Reg. Sess., at 2 (Cal. 2001), *available at* http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010426_132334_sen_comm.html; *see also infra* note 131.

[47] Davies, *supra* note 6, at 1267.

[48] ELLEN HANAK, WATER FOR GROWTH: CALIFORNIA'S NEW FRONTIER (2005).

[49] This is especially true because many California localities had assured supply laws of their own prior to adoption of the statewide measure in 2005. *See* Caitlin S. Dyckman, *A Dynastic Disruption: The Use Efficiency and Conservation Legacy of the Governor's Commission To Review California Water Rights Law Recommendation*, 36 MCGEORGE L. REV. 175, 202 (2005).

[50] Davies, *supra* note 6, at 1265-78.

[51] *See id.* at 1265.

at least given homebuyers warning that sufficient water was lacking.[52] Second and third, assured supply laws improve planning at both the micro and macro level. The micro-level benefits should be obvious: the laws force planners to take into account water availability before proceeding with a project. But the macro-level benefits are also real, even if somewhat unexpected. Assured supply laws appear to be pushing land and water planners to coordinate more closely in broader ways, other than simply on whether any given project can demonstrate water sufficiency.[53] Fourth, assured supply laws may have ancillary benefits for the legal system, because they signal projects that pose water rights dilemmas relatively earlier on in the process rather than after construction has begun.[54] Finally, assured supply laws help promote water conservation, at least incrementally, thus delivering at least one of the environmental benefits for which the laws' advocates hope.[55]

Despite these offerings, assured supply laws also do not come without costs. The most obvious are the administrative costs of additional red tape from checking for water every time a project is proposed, though presumably these costs are offset—or justified—by any consumer protection and planning benefits the laws deliver.[56] More critical, then, should be other costs. The most direct is sprawl. Although one of the primary motivators for adopting assured supply laws is halting sprawl, there is a risk that these laws may actually exacerbate it.[57] That is because "wet growth" laws do not actually target the spatial development patterns that lead to sprawl,[58] but rather, simply require whatever development does occur to have sufficient water. Because some localities want to limit growth while others want to attract it, "races to the bottom" may arise where some jurisdictions intentionally forgo implementing assured supply requirements to attract growth. To the extent development in these areas furthers sprawl, assured supply laws may intensify the very trend they seek to combat.[59]

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[52] *Id*. at 1265-67.

[53] *Id*. at 1269-70.

[54] *Id*. at 1271-72.

[55] *Id*. at 1274-75.

[56] *Id*. at 1268.

[57] *Id*. at 1276-78.

[58] For sophisticated definitions of sprawl, *see*, for instance, Jackie Cutsinger et al., *Verifying the Multi-Dimensional Nature of Metropolitan Land Use: Advancing the Understanding and Measurement of Sprawl*, 27 J. URB. AFFAIRS 235, 248 (2005); George Galster et al., *Wrestling Sprawl to the Ground: Defining and Measuring an Elusive Concept*, 12 HOUSING POL'Y DEBATE 681, 687-98 (2001).

[59] Davies, *supra* note 6, at 1276-78. Beyond this, assured supply laws may impose at least two other auxiliary costs they do not intend. If poorly designed, they may create a perception that

Thus, the ultimate verdict on assured supply laws is not in. The laws appear to offer important benefits, and their costs seem unlikely to outweigh those benefits.[60] Nevertheless, the precise balance of these benefits and costs cannot currently be calculated with precision.

III. SUSTAINABILITY AND THE LAW

Putting assured supply laws in the sustainability context first requires understanding what sustainability is. This is not as easy a task as it may seem. True, basic notions of sustainability have been around for decades, most prominently in the natural resource management context.[61] This was the ideal of early conservationists such as Teddy Roosevelt and Gifford Pinchot: to maximize resource use over time, so that renewable resources are not diminished more quickly than they replenish.[62] Over the past thirty to forty years, however, sustainability has taken on a much broader meaning. Now, the term "sustainable" is employed in a wide variety of contexts, as in "sustainable consumption," "sustainable use," and "sustainable design."[63] As J.B. Ruhl recently observed, "Adding the word 'sustainable' to proposals for just about anything is in vogue these days."[64]

The most common addition of "sustainable" is to "development." Since the United Nations' World Commission on Environment and Development (the "Brundtland Commission") issued its *Our Common*

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they have solved water problems, when in fact they have not. And, to the extent they are tagged with a reputation of unnecessary regulation, either because they slow development or fail to deliver on promised results, they may incite a backlash against other environmentally minded reforms. *See id.* at 1273, 1277-78.

[60] *See id.* at 1265-78.

[61] *See, e.g.*, Robert L. Glicksman, *Sustainable Federal Land Management: Protecting Ecological Integrity and Preserving Environmental Principal*, 44 TULSA L. REV. 147 (2008); Robert B. Keiter, Public *Lands and Law Reform: Putting Theory, Policy, and Practice in Perspective*, 2005 UTAH L. REV. 1127; Charles F. Wilkinson, *The National Forest Management Act: The Twenty Years Behind, the Twenty Years Ahead*, 68 U. COLO. L. REV. 659 (1997); Sandra Zellmer, *Why Resilience May Not Always Be a Good Thing: Lessons in Ecosystem Restoration from Glen Canyon and the Everglades*, 87 NEB. L. REV. 893 (2009).

[62] Arnold W. Bolle, Foreword to CHARLES F. WILKINSON & H. MICHAEL ANDERSON, LAND AND RESOURCE PLANNING IN THE NATIONAL FORESTS 1, 1 (1987).

[63] *E.g.*, Press Release, CSR News, Nearly 9 out of 10 Business Leaders Believe U.S. president-Elect Obama Will Help Advance the Corporate Responsibility Agenda (Nov. 6, 2008), *available at* www.csrwire.com/News/13642.html ("Sustainability is no longer an activity on its own, but it is totally integrated into everything we do. Business should embrace this approach if we are going to create sustainable economic growth worldwide." (quoting IKEA CEO Ander Dahlvig)).

[64] J.B. Ruhl, *Law for Sustainable Development: Work Continues on the Rubik's Cube*, 44 TULSA L. REV. 1, 1 (2008).

Future report in 1987,[65] the term "sustainable development" has dominated the environmental policy scene, so much so that President Clinton assembled a commission on the subject,[66] conferences repeatedly have focused on it as their topic, and sustainable development scholarship has surged.[67] Despite sustainable development's ascendancy on the policy front, however, little effort has been made to translate its policy goals into hard law. "Sustainable development, a concept that emerged in 1987 and was globally endorsed at the 1992 Earth Summit, has largely been avoided by the law. The law's delay in assimilating policies of sustainability is frustrating."[68]

Thus, the question of sustainability involves both what sustainable development encompasses, and what sustainable development law might look like. This Part addresses those questions, then applies them to assured supply law design options, to build a model of what an assured supply law focused on sustainability might comprise.

A. SUSTAINABLE DEVELOPMENT

In 1987, the U.N.'s so-called Brundtland Commission defined sustainable development as "development that meets the need of the present without compromising the ability of future generations to meet their own needs."[69] This was the same refrain echoed by President Clinton's Council on Sustainable Development when it issued its 1999 report, *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st Century*.[70] That report defined sustainable development thus: "A sustainable United States will have a growing economy that provides equitable opportunities for satisfying livelihoods and a safe, healthy, high quality of life for

[65] WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE (1987) [hereinafter "*WCED*"].

[66] PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, SUSTAINABLE AMERICA: A NEW CONSENSUS FOR THE FUTURE (1996).

[67] *See generally*, *e.g.*, BLACKBURN, *supra* note 1; JOHN BLEWITT, UNDERSTANDING SUSTAINABLE DEVELOPMENT (2008); CORDONIER SEGGER & KHALFAN, *supra* note 1; HERMAN E. DALY, BEYOND GROWTH: THE ECONOMICS OF SUSTAINABLE DEVELOPMENT (1997); ANDRES R. EDWARDS & DAVID W. ORR, THE SUSTAINABILITY REVOLUTION: PORTRAIT OF A PARADIGM SHIFT (2005); ENVIRONMENTAL LAW FOR SUSTAINABILITY (Benjamin J. Richardson & Stepan Wood eds., 2006).

[68] Spyke, *supra* note 2, at 729.

[69] *WCED*, *supra* note 65, at 43.

[70] PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, TOWARDS A SUSTAINABLE AMERICA: ADVANCING PROSPERITY, OPPORTUNITY, AND A HEALTHY ENVIRONMENT FOR THE 21ST CENTURY (1999), *available at* clinton2.nara.gov/PCSD/Publications/tsa.pdf.

current and future generations."[71]

Almost immediately, the commonalities in the various definitions of sustainable development emerged. It became clear that the reason sustainable development differed from traditional environmental protection was that it focused on more than the environment alone. Instead, it also emphasized both economic development and principles of justice, namely, equity. Thus, J. William Futrell, former president of both the Sierra Club and the Environmental Law Institute, described sustainable development as "denot[ing] an effort to meld concerns for environmental protection, economic well-being, and social justice."[72] This then became known as the "triple bottom line," or the "three E's," of sustainable development: environmental protection, economic development, and equity.[73]

Although clear enough conceptually, actually applying the triple bottom line is a much murkier proposition. Maximizing a single policy objective is difficult. Optimizing three simultaneously is far harder.[74] An oil development project, for instance, might bring a region more jobs, thus promoting the economic and equity prongs of sustainable development, but harm local groundwater or the global climate, thus hindering the environment prong. An effort to restore wetlands might offer both environmental protection and economic development via "green collar" employment, but fail to take into account other ills plaguing lower-income and minority communities. In short, at some point there will almost always be conflicts among sustainable development's three E's.[75] And even when there is not, finding the proper balance is not a simple task.

In part for this reason, sustainable development has been subject to heavy criticism on multiple grounds. Its scope is too "enormous (and

[71] *Id.* at iv.

[72] J. William Futrell, *Defining Sustainable Development Law*, 19 NAT. RESOURCES & ENV'T 9, 9 (2004).

[73] *See, e.g.*, Ben Boer, *Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action*, 31 WILLAMETTE L. REV. 307, 318 (1995); John C. Dernbach, *Sustainable Development: Now More Than Ever, in* STUMBLING TOWARD SUSTAINABILITY 45, 45 (John C. Dernbach ed., 2002); U.N. Conference on Environment and Development, Promoting Sustainable Human Settlement Development, Agenda 21, U.N. Doc. A/ CONF.151.26 (1992).

[74] *E.g.*, Ruhl, *supra* note 10, at 74-75.

[75] *See, e.g.*, ERIC T. FREYFOGLE, WHY CONSERVATION IS FAILING AND HOW IT CAN REGAIN GROUND 138 (2006); Robert J. Klee, Note, *Enabling Environmental Sustainability in the United States: The Case for a Comprehensive Material Flow Inventory*, 23 STAN. ENVTL. L.J. 131, 139-40 (2004); Ileana M. Porras, *The City and International Law: In Pursuit of Sustainable Development*, 36 FORDHAM URB. L.J. 537 (2009).

amorphous)."[76] Its definition is a "persistent . . . problem."[77] The uncertainty it introduces is "seemingly unmanageable."[78] Its very concept is "overused, misused, and abused."[79] Sustainable development's core premise—the melding of multiple policy aims—is simultaneously its biggest contribution and its greatest hindrance. "The virtue of sustainability as a concept sufficiently broad to embrace contemporary thinking becomes the curse of vagueness when the discussion shifts from the general to the specific."[80]

Thus, scholars have not hesitated to observe that, in the stark light of day, sustainable development risks manifesting more as a watered down version of environmental protection than a holistic vision of the future. This was Professor Eric Freyfogle's conclusion when he put sustainable development under the microscope:

> [Seeing] sustainability as a catchall aspiration, including social justice along with land use issues, . . . presumes that conservation stands in tension with economic growth and social justice, with trade-offs therefore necessary. Sustainability then becomes one grand umbrella covering a variety of competing concerns. Under that umbrella compromises are made, and the ultimate outcome is a package of policies that promotes sustainability writ large. Thus, in an effort to promote sustainability, we can end up endorsing policies that are harsh on nature and that cannot be continued in any ecological sense. And yet, the policies are said to promote sustainability because of their social justice implications.[81]

In other words, there is a risk that sustainable development is a Trojan horse. Rather than advancing environmental protection in a way that makes more sense than our current, fragmented approach, it may actually undermine that objective by putting it in a paradigm where compromises beneath the baseline are inevitable.

It is this kind of criticism that has led some scholars to craft different visions of sustainable development. As Professor Gary Bryner argued, there are two kinds of sustainable development: a "weak or thin"

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[76] Spyke, *supra* note 2, at 730.

[77] David R. Hodas, *The Role of Law in Defining Sustainable Development: NEPA Reconsidered*, 3 WIDENER L. SYMP. J. 1, 15 (1998).

[78] Spyke, *supra* note 2, at 730.

[79] Ruhl, *supra* note 64, at 2.

[80] Lawrence J. MacDonnell, *Sustainable Use of Water Resources*, 12 NAT. RESOURCES & ENV'T 97, 97 (1997).

[81] FREYFOGLE, *supra* note 75, at 138.

form, and a "strong or thick" version.[82] The former sees sustainability as inevitably balancing economic and environmental criteria. It incorporates the sense that economic growth must continue but merely be "refined and balanced by environmental sensitivity."[83] The latter, "strong and thick" version of sustainable development places environmental protection at its pinnacle. It works not by increments but by wholesale change, contending that society "must be fundamentally transformed to avoid ecological disruptions and protect regenerative processes."[84]

B. SUSTAINABLE DEVELOPMENT LAW

Having seen the difficulties in placing sharp contours on the concept of sustainable development, it should hardly be surprising that the process of creating holistic sustainable development law has lagged. To be blunt, there have been "very few" efforts at trying to meld sustainable development's three E's into a single legal mechanism, whether at the local, state, federal, or international level.[85] Why?

One problem is the vagueness that the sustainable development concept brings. How should policymakers be expected to draft legislation that *implements* sustainability when the very *idea* of sustainability is so pliable and uncertain? This is an oft-invoked reason for the stalled status of sustainable development law. It does not hold up. The concept of justice is perhaps the broadest in modern thought, yet lawmakers do not let that stop them from passing bill after bill seeking to implement that fuzzy idea in more concrete ways. Sustainability is no different.[86]

There also is the problem of inertia—that existing environmental and natural resources law already pervasively addresses many of the dilemmas that sustainable development touches, so changing that legal infrastructure is hardly an easy, or fast, task. No doubt, the breadth of modern environmental law is significant.[87] But it is also flawed:

[82] Gary C. Bryner, *Policy Devolution and Environmental Law: Exploring the Transition to Sustainable Development*, 26 ENVIRONS ENVTL. L. & POL'Y J. 1, 14-15 (2002).

[83] *Id.* at 14.

[84] *Id.* at 15.

[85] Spyke, *supra* note 2, at 729.

[86] Futrell, *supra* note 72, at 9.

[87] *See, e.g.*, RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 5 (2004); JAMES SALZMAN & BARTON H. THOMPSON, JR., ENVIRONMENTAL LAW AND POLICY 2 (2d ed. 2007); Zygmunt J.B. Plater, *From the Beginning, a Fundamental Shift of Paradigms: A Theory and Short History of Environmental Law*, 27 LOY. L.A. L. REV. 981, 1003-04 (1994). For more on the connection, or lack thereof, between environmental law and energy law, *see, e.g.*, Lincoln L. Davies, *Alternative Energy and the Energy-Environment Disconnect*, 46 IDAHO L. REV. 473 (2010), and Amy J. Wildermuth, *Is Environmental Law a Barrier to Emerging Alternative Energy Sources?*, 46

fragmented, short-sighted, reactionary, and silo-ed.[88] The very point, or at least a key point, of sustainable development is to correct these flaws. It is to integrate the legal process more fully so that we do not, for instance, see agricultural pesticide runoff separately from the subsidies provided to farms, or the implications that those subsidies have on the wealth distribution in farming communities and nationwide. Inertia is an excuse, not a reason, for inaction.

So too for other rationales offered for why sustainability law need not proceed: That sustainable development is vague, or confusing, or dull, is irrelevant. Every policy rubric has flaws. Sustainable development is no different. Perfection, though, is still the enemy of the good.[89] Sustainable development still advances the ball from where we are today. Sustainability still focuses "people and policy on the need to take into account the interrelationship of economy, environment, and equity, at all scales, over intergenerational timeframes. Few concepts can claim that, so let us not abandon one that can."[90]

What is needed is not further naysaying on why sustainable development law cannot work but efforts to actually test whether it can. This will be a process of starts and stops, experiments and failures. That is only inevitable. Overhauling a field of law—or laws—never comes without difficulty. Yet just as justice now serves as the touchstone for many of our legal instruments, sustainability may be the benchmark going forward.[91] For that to happen, sustainable development law must develop too. Markets drive our economy, and they need "rules and enforcement mechanisms" to function correctly—in short, "an effective governance structure."[92] Likewise for many other behaviors, a new form of governance is needed if change is what we seek, and change is precisely what sustainable development aims for. "Sustainable development is impossible without transforming the legal structure within which human activities, transactions, and initiatives occur."[93] To put that new governance structure in place, we need new rules, policies,

IDAHO L. REV. 509 (2010).

[88] *E.g.*, J. CLARENCE DAVIES & JAN MAZUREK, POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM 288 (1998); WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 59-60 (2d ed. 1994).

[89] *See* THE OXFORD DICTIONARY OF QUOTATIONS 716 (Angela Partington ed., 4th ed. 1996) (translating "*le mieux est l'ennemi du bien*" (Voltaire)).

[90] Ruhl, *supra* note 64, at 2.

[91] Futrell, *supra* note 72, at 9.

[92] CHARLES HOLLIDAY ET AL., WALKING THE TALK: THE BUSINESS CASE FOR SUSTAINABLE DEVELOPMENT 72 (2002).

[93] Futrell, *supra* note 72, at 9.

and guidelines. We need "details, standards, incentives, regulations, enforcement, and all the other stuff lawyers do."[94] That is, we need law.

What sustainable development law ultimately will look like is not yet clear. Some outlines, however, have begun to emerge. From the concept of sustainable development itself, at least four baseline principles should be obvious.

First, sustainability law must be forward-looking. If a key to sustainability is preserving resources in a way that does not harm future generations, sustainability law cannot be reactive to problems in the same way that current environmental law is. Rather, it must anticipate them, take them into account before they happen, and seek to avert them. In this way, sustainability law should be more planning- and process-centered than existing environmental law. Accordingly, it also must be more flexible than current law, because those plans necessarily will change over time.[95] As Professor Nancy Perkins Spyke recently summarized, sustainability law "must create a mechanism that will integrate the interests of the future into decision making, and should require long-range planning as a means of meeting that goal."[96]

Second, sustainability law must seek to advance the triple bottom line of sustainable development. This is different from many environmental laws, which focus on one medium, activity, or industry.[97] There are already some parallels in other contexts, most notably natural resource management, where statutes afford agencies leeway to balance a constellation of objectives. The concept of multiple-use sustained-yield from statutes such as FLPMA and the National Forest Management Act comes to mind.[98] Sustainability law, though, must go well beyond extant models such as these, because it inherently includes equitable considerations on top of ecological and economic principles that existing statutes put into play. It also must work toward a much broader vision—a sustainable *society*, not merely a sustainable *resource*.

Third, sustainability law should recognize that it needs both substance and procedure. It is not enough to say that "sustainability law should arise from a strong commitment to sustainable development," or

[94] Ruhl, *supra* note 64, at 2.

[95] *E.g.*, David R. Boyd, *Sustainability Law: (R)Evolutionary Directions for the Future of Environmental Law*, 14 J. ENV. L. & PRAC. 357, 372-73 (2004); John R. Nolon, *Comparative Land Use Law: Patterns of Sustainability*, 37 URB. LAW. 807, 812 (2005); Spyke, *supra* note 2, at 726-27.

[96] Spyke, *supra* note 2, at 759.

[97] Lincoln L. Davies, *Alternative Energy and the Energy-Environment Disconnect*, 46 IDAHO L. REV 473 (2010).

[98] 16 U.S.C. §§ 528 et seq., 1600 et seq. (Westlaw 2010).

that it must be "linked to indicators and measurable goals."[99] A key criticism of sustainability is that it is "used variously both as a means and as an end." [100] As Professor Freyfogle has noted, this raises a number of knotty dilemmas. "[H]ow do we apply this test [of sustainable means] to the aspects of nature that are nonrenewable? . . . How do we sustain something that is inherently dynamic? . . . [W]hen used as an end, sustainability is literally incoherent . . . until it is matched with a noun . . . . There must be some *thing* that is being sustained."[101] Making sustainability law that focuses on both process and substance might help alleviate sustainability's vagueness in this regard. There are many reasons why advocates of sustainable development might refer to the concept in procedural terms, but certainly among them is that sustainable processes are seen as furthering sustainable ends.[102] A new policy goal adopted with little political buy-in is unlikely to last. Thus, sustainability law should be participative. It should employ "procedures that will change traditional attitudes at all levels of governance."[103] It should cut across agencies rather than allowing administrators to shutter themselves in. It should "discard[] centralization and fragmentation when necessary and . . . encourag[e] non-regulatory private or public-private partnerships."[104]

Finally, while sustainability law clearly must be forward-looking, flexible, adaptable, and procedural, none of that should dilute the core mission of sustainable development. That is, sustainability law must subscribe to Gary Bryner's so-called "thick and strong" version of sustainable development. It must place environmental protection at the forefront of its objectives. Doing so means that sustainability law will aim to locate minimum levels of ecosystem protection necessary to ensure that society is sustainable, and then enforce them. It means that sustainability law will look for win-win-win solutions.[105] It means, in short, that sustainability law will always keep an eye on the future, rather than bankrupting it for immediate gains.

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[99] Spyke, *supra* note 2, at 759, 760.

[100] FREYFOGLE, *supra* note 75, at 120.

[101] *Id*.

[102] *See, e.g.*, ORGANIZATION OF AMERICAN STATES, INTER-AMERICAN STRATEGY FOR THE PROMOTION OF PUBLIC PARTICIPATION IN DECISION-MAKING FOR SUSTAINABLE DEVELOPMENT, Inter-American Council on Integral Development, CIDI Res. 98 (V-O/00) OEA/Ser.W/II.5, Apr. 20, 2000, arts. 2-3, *available at* www.oas.org/dsd/PDF_files/ispenglish.pdf.

[103] Spyke, *supra* note 2, at 759.

[104] *Id*.

[105] *See generally, e.g.*, John Elkington, *Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development*, CAL. MGMT. REV., 90 (Winter 1994).

C. SUSTAINABILITY AND ASSURED SUPPLY LAW DESIGN

Because comprehensive data on assured supply law performance remains lacking,[106] the specific nuances of how best to design assured supply laws remain largely theoretical. Certainly some elements of design must depend on the specific needs and features of any given state. As the record of assured supply law performance grows, the lessons learned for how to structure them should as well.

In a previous article, I outlined five principles around which assured supply laws are typically built. These design elements are the laws' (1) compulsoriness, or whether they are mandatory or merely voluntary; (2) stringency, or whether they demand rigorous proof of adequate water or merely some attestation of a supply; (3) universality, or whether they apply across a state or only in parts of it; (4) granularity, or whether they apply to all sizes of development or only large projects; and (5) interconnectedness, or whether the assured supply law is integrated with other land, environmental, and water planning requirements, or stands alone.[107] The article concluded that laws with certain traits should be more effective than those that lack them. Specifically, it reasoned that compulsory, stringent, universal, granular, interconnected assured supply laws should be better at maximizing the benefits, and minimizing the costs, that these laws present.[108]

By definition, these design factors do not speak to sustainability. They anticipate only assured supply law effectiveness. As a result, they also do not address how assured supply laws should be designed from a sustainability perspective, if they in fact do promote sustainability.

i. Assured Supply Laws as Sustainability Law

It is plain that, at least at the surface level, assured supply laws promote sustainability. Their very aim is rooted in achieving a kind of society that does not now exist—one where new development occurs only if there is sufficient water, that is, if the development can be *sustained*. Likewise, assured supply laws are fundamentally forward-looking. Assessment of whether there will be adequate water for a development in 5, 10, 20, or 100 years inherently requires thinking beyond the here and now. This, in turn, naturally requires balancing resource use across generations.

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[106] *See supra* Part I.C.

[107] Davies, *supra* note 6, at 1279-91.

[108] *Id.* at 1279-80.

On the other hand, it is not as obvious that assured supply laws promote all sustainable development aims. While these laws employ a kind of resource concurrency requirement that presumes economic development will continue but only in a water-sufficient way,[109] the assured supply law requirement itself says nothing about how to ensure that such water consumption is not environmentally detrimental. Indeed, because assured supply laws do not try to limit growth, but merely seek to make sure there is water to supply it, one could argue that these laws are closer to environment-neutral than environment-positive. Nor do assured supply laws create any obvious mechanism for seeking to optimize all three of sustainable development's E's. They say nothing about equity and very little, if anything at all, about economics. This failure means that assured supply laws do not necessarily employ the five-part sustainable development "algorithm," as Professor Ruhl has called it, in which the three E's are not just optimized, but optimized over both different geographies and time.[110]

Thus, while assured supply laws clearly incorporate some elements of sustainability, their "fit" with the four basic pillars of sustainability law is less clear. The question of how to design assured supply laws to best promote sustainable development remains open.

ii. Sustainability Design for Assured Supply Laws

Applying sustainability law's four pillars should yield at least a beginning sketch of the design elements needed to bring assured supply laws more in line with sustainable development. Certainly, more work will be necessary on this front as both assured supply laws specifically and sustainability law generally evolve, but there must be a starting point.

First, because assured supply laws are inherently forward-looking, the question is how forward-looking they should be. Thinking in sustainability terms, longer would seem better. If the very object of sustainability is to ensure that an activity can be maintained across generations, a water adequacy projection of 5 or 10 years would seem presumptively inadequate. Standard mortgages last 30 years; assured supply projections should not last less. Indeed, given that assured supply requirements typically apply to new subdivisions,[111] it is unlikely that those developments will simply disappear in years or decades.

[109] *Id*. at 1245.

[110] Ruhl, *supra* note 10.

[111] *See supra* Part I.A.

Gentrification shows as much. Thus, projections on the order of 100 years or longer would seem reasonable as a starting point for an assured supply law deemed well rooted in sustainability's forward-looking aim.

Second, assured supply laws should not forgo analysis of economic and equitable criteria merely because water adequacy has been found. They should seek to optimize all three of sustainable development's E's. This means that assured supply laws should not stop at asking about water, but need to extend more broadly. At a minimum, administrators should consider the effect of their assured supply determination on the other two E's. They should also weigh the environmental impacts of the water the projects they approve. That is, local authorities passing on an assured supply law determination should assess whether there will be detrimental economic or equitable results stemming from their decision. For instance: Does the disapproval of a development pull housing off the market that would be needed for economic growth? If so, are there alternate water supplies that could be tapped to allow the project to go forward? If a project is approved, does it foster or hinder housing for lower incomes? More than this, assured supply laws could be used not just to consider all three E's, but to optimize them. It is, of course, fair to ask whether relatively narrow tools such as assured supply laws should be stretched so far, and perhaps they should not. But the fact that one of the most sustainability-centric mechanisms in water and land use planning today does not reach as broadly as sustainability itself would at least raises the question of whether there should be a mechanism that does.

Third, to the extent appropriate, assured supply laws should employ procedures that help point toward sustainability's substance. Many of these may already be in place. Land plat approvals may or may not allow for public participation, but general land plans typically do.[112] To the extent assured supply assessments go beyond that general level of planning, they should account for public participation as well. This is tied directly to one of the laws' benefits: that they may signal an overallocation of water earlier on than might otherwise be the case.[113] By the same measure, assured supply laws should leave leeway for developers to prove sufficiency of water other than by traditional means. If, for instance, a developer can find water that would not otherwise be available to the municipal provider,[114] that kind of innovation should be

[112] *See, e.g.*, Douglas W. Kmiec, *Deregulating Land Use: An Alternative Free Enterprise Development System*, 130 U. PA. L. REV. 28, 35-36 (1981).

[113] Davies, *supra* note 6, at 1271-72.

[114] Compare, *e.g.*, Dale Kasler, *Private Water Sales Are Paving Way for Growth*,

embraced, not discouraged, in the name of sustainability.

Finally, if assured supply laws are to promote sustainability, they must put in place limits that invoke the "thick and strong" form of sustainable development. At the threshold, assured supply laws seem to do this already. They prevent development unless there is adequate—sustainable—water. But the question is more complicated than that.

Even if there is adequate water, the assured supply laws say nothing about the overall environmental effects of using the water. Will its consumption harm ecosystems? Endanger species? Are there alternate supplies that may have fewer, or less problematic, environmental effects? Assured supply laws gloss over these questions because they start with the proposition that adequate water is the end of the analysis, not the beginning.

Moreover, merely putting an assured supply requirement in place says nothing of that requirement's efficacy. Yet if the requirement does not work, the objective of minimal environmental protection is undermined. The five-factor assured supply law design suggestions of compulsoriness, stringency, universality, granularity, and interconnectedness thus come into play.[115] In short, effectiveness matters: part of implementing the thick form of sustainability in assured supply laws must include ensuring that the laws work as well as possible.

IV. ASSURED SUPPLY LAWS UNDER THE SUSTAINABILITY LENS: A FIVE STATE COMPARISON

Design of assured supply laws vary. From a sustainability perspective, this manifests in two ways. First, the general directions in which assured supply laws do and do not promote sustainability tend to follow parallel tracks among the states but, second, the extent to which states' laws promote sustainability differs. To demonstrate how this point tends to play out,[116] this Part takes a cross-section of five state assured supply laws, those of Arizona, California, Colorado, Montana, and Nevada.

SACRAMENTO BEE, Sept. 22, 2002, at A1, *with* Lora Lucero & A. Dan Tarlock, *Water Supply and Urban Growth in New Mexico: Same Old, Same Old or a New Era?*, 43 NAT. RESOURCES J. 803, 828 n.106 (2003).

[115] *See supra* note 107 and accompanying text.

[116] Other states have assured supply laws as well. *See supra* notes 18-19. The sample examined here is intended to be roughly representative, not comprehensive.

A. FUTURE PLANNING

Assured supply laws look to the future by definition.[117] How they promote sustainability's emphasis on future interests, however, varies quite significantly.

Some states take a long view. Arizona's law, for instance, demands that there be sufficient water for a development for 100 years.[118] California likewise puts its scope fairly far out on the horizon: it requires that water be available for developments subject to its assured supply law for 20 years.[119]

Other states put less emphasis on this point. Nevada requires that proposed subdivisions be accompanied by a certificate from the "Division of Water Resources . . . showing that the final map is approved . . . concerning water quantity," but that approval remains the agency's province, not the subject of strict future timeframes.[120] Likewise, all the Montana assured supply law mandates is "evidence of adequate water availability," without reference to a definite period of time.[121] Colorado is similar.[122]

Of course, one might question how far into the future even sustainable development would ask assured supply laws to look. Water is a renewable resource, so the question of intergenerational harm should be less pointed here than in instances where immediate consumption has an irreparable effect on the resource base. Indeed, while fresh, readily available water is limited, water in general is not. Our continent is surrounded by it. Desalinization already allows for that supply to be harvested, albeit at a relatively high price.[123] As technology evolves, those prices should come down. That is history's trend.

Moreover, the risk of errant forecasts is not insignificant. It is difficult enough for economists to assess a likely trend three months out. Asking local land and water officials to peg a single subdivision to a water supply for a time period multiples longer when there are so many moving parts—not the least of which are population growth, technological development, and climate change[124]—is a tall order

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[117] *See supra* Part II.C.2.

[118] ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010).

[119] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[120] NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[121] MONT. CODE. ANN. § 76-3-622(e) (Westlaw 2010).

[122] COLO. REV. STAT. ANN. § 30-28-133(3)(d) (Westlaw 2010).

[123] *See generally, e.g.*, Jared Huffman, Moderator, *Desalination in California: Should Ocean Waters Be Utilized to Produce Freshwater*, 57 HASTINGS L.J. 1343 (2006).

[124] Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 Stan.

indeed.

Nevertheless, an assured supply law seeking to achieve sustainability should at least attempt to approximate future supplies, given sustainability's forward-looking emphasis. Failing to do so not only risks emptying the laws of content; it undermines their potential to further sustainability itself. Only when an assured supply law, like California's, or, better, Arizona's, looks to the long term can it claim sustainability as a goal. Tentativeness in future projections can be taken into account in the assessment.

B. THE THREE E'S

Assured supply laws are more uniform in how they address sustainable development's three E's. They focus primarily on only one third of the equation—the environment—and then generally only on the water supply facet of that question.

This should only be expected given the purposes for which assured supply laws are adopted: guarding against developments with insufficient water. While many assured supply law advocates cite more environment-centric rationales for these laws' adoption,[125] ultimately the core benefit of these laws may be consumer protection. As one Wyoming water official observed, "[Our assured supply law] was passed because we had developers sell their lots and disappear. When the new property owners found they didn't have adequate water quality or quantity[,] they would come to the state and try to get water development funding for a water project."[126]

It is thus unsurprising that assured supply laws do not holistically search for an optimal balance of the three E's. As a group, these laws typically are uni- rather than multi-dimensional. The Montana law assesses whether there is "adequate water availability" of "sufficient water quality" as prescribed by state administrative rules.[127] The Nevada law, too, weighs the "availability of water which meets applicable health standards and is sufficient in quantity."[128] Arizona and Colorado are little different, although Arizona places heavy weight on groundwater impacts

Envtl. L.J. 1 (2010).

[125] *See supra* Part I.B.

[126] Email from John Wagner, Wyoming Water Development Comm'n, to David Johnson, Quinney Fellow, University of Utah S.J. Quinney College of Law (Feb. 5, 2010) (on file with author); *see also* Davies, *supra* note 6, at 1265-67.

[127] MONT. CODE ANN. § 76-3-622(e), (f) (Westlaw 2010).

[128] *See* ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010); COLO. REV. STAT. ANN. § 30-28-133(3)(d) (2007); *see also supra* note 14.

rather than water availability alone.[129]

California does break from the other states by giving a nod to one more "E"—equity—in its law. The California assured supply law exempts new developments designed for low-income housing from its requirements.[130] Implicitly, this strikes a sustainability-informed balance that is absent from other statutes. Whereas other states' assured supply laws address, at most, economics and the environment in an implicit way (by assuming that all economic development is good as long as there is sufficient water), California's law touches on all three of the E's (by also promoting economic development where there is water, but promoting it more if it will help the economically less fortunate). One might quibble with the balance that this assured supply law strikes. But the point is not whether the statute's balance is right or wrong. It is that California at least weighed what the balance should be, and then addressed that in its law. That is more than the other state assured supply laws do. For this reason, the California assured supply law can fairly claim to be more sustainability-centered than the other states' laws.

Granted, many assured supply laws are enacted into broader subdivision and land-planning statutes, and many of those statutes ask planning officials to consider questions well beyond water availability alone. For instance, the Nevada law directs land planning officials to consider, in addition to water supply, "environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal" for new subdivisions.[131] That land planning generally may touch on other facets of sustainability beyond water, however, is a different question than whether assured supply laws themselves do. The question for assured supply laws is whether they ask planners to weigh all three dimensions of sustainable development from the water perspective—or at least their water supply determination's effects on those three dimensions. An assured supply law could, for example, give land planners discretion to deny plat approvals if a given mix of sustainable development goals related to water, including water availability, is not met. The answer is that, with the exception of California, assured supply laws remain narrower than this.

[129] NEV. REV. STAT. ANN. § 278.349(3)(b) (Westlaw 2010).
[130] CAL. GOV'T CODE § 66473.7(i) (Westlaw 2010).
[131] NEV. REV. STAT. ANN. § 278.349(3)(a) (Westlaw 2010).

C. PROCEDURE

Assured supply laws employ some procedural innovations that help push toward sustainability. It is difficult to say with any definitiveness what "procedure for sustainable development" is, but a working definition might be procedure that (1) tends to promote sustainable development's objectives by (2) ensuring that all elements of sustainable development are well represented in decisionmaking. Certainly part of this must be an emphasis on broad public participation; part of it, too, is utilizing alternate methods from traditional top-down governance.[132]

Assured supply laws break only partially from this mold. All five of the laws surveyed here still leave the subdivision approval process to a centralized executive agency, typically the local land use board, and in turn, the ultimate decision on whether there is sufficient water as well.[133] Not much else could be expected. Any problem of this type must give the final say to some decisional authority, lest there be no regulation at all.

Where assured supply laws do find new ground is by coordinating planning between different sets of decisionmakers—land use authorities and water planners.[134] How they do so is not uniform. California effectively encourages the assured supply decision to tier off broader urban water management plans, which themselves seek to avoid the problem of "paper" water that will not actually be there for the development.[135] Somewhat similarly, states like Arizona and Nevada turn to their state water officials for the assessment of whether "wet" water will be available.[136] This kind of planning integration should, in general, promote sustainability by giving both sets of decisionmakers better information on the true impacts of their determinations. By contrast, assured supply laws like Montana's are less likely to advance the sustainability ball because rather than integrating planning, they leave the door open for disaggregated, independent water availability assessments. As the Montana law states, all that is needed to comply is "evidence of adequate water availability," which may come from "well logs or testing of onsite or nearby wells," data from "published

[132] *See supra* Part II.C.2.

[133] *See* ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); CAL. GOV'T CODE § 66473.7(b) (Westlaw 2010); COLO. REV. STAT. ANN. § 30-28-133 (Westlaw 2010); MONT. CODE ANN. § 76-3-601 (Westlaw 2010); NEV. REV. STAT. ANN. § 278.349 (Westlaw 2010).

[134] *See* Davies, *supra* note 6, at 1269-73.

[135] CAL. GOV'T CODE § 66473.7(c) (Westlaw 2010); Cal. Water Code §§ 10615, 10621, 10635 (Westlaw 2010).

[136] ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

hydrogeological reports," or other sources.[137]

Finally, some assured supply laws potentially open the door to a greater public-private dialogue. Arizona, California, Colorado, Montana, and Nevada all appear to fall into this category. They acknowledge, implicitly or explicitly, that new water supplies might come from sources other than a municipal provider,[138] thus at least creating the possibility that solutions the private sector finds optimal (as expressed by a market bargain between land developer and water rights holder) gain greater sway.[139] Because, however, assured supply laws otherwise rely on generally applicable public participation procedures, they do not gain further ground on this front.

D. "THICK" SUSTAINABILITY

The degree to which assured supply laws adopt a "thicker" or "stronger" form of sustainability also varies. While all the laws inherently make land planning more oriented toward environmental protection, some laws put more emphasis on this effort than others.

California's law, for instance, by focusing not just on water availability in theory but on its presence in different environmental conditions, gives environmental protection relatively more weight than assured supply laws that view water as a consumable resource and nothing more.[140] Arizona's law likewise promotes broader environmental protection than an assurance of water supply alone. It was adopted for the very purpose of avoiding groundwater overdraft, a critical environmental problem that renders water a nonrenewable resource by withdrawing it from aquifers faster than its recharge rate.[141] Colorado's, Montana's, and Nevada's laws, on the other hand, appear to focus primarily on water supply as such, leaving bigger water-related environmental questions to other measures.

Just as critical to the question of how well assured supply laws locate minimum levels of environmental protection for "thick" sustainability is the laws' effectiveness. The answer here is indeterminate, because comprehensive performance data remains

[137] MONT. CODE ANN. § 76-3-622(e) (Westlaw 2010).

[138] ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); CAL. GOV'T CODE § 66473.7(c) (Westlaw 2010); COLO. REV. STAT. ANN. 30-28-133(3)(d) (Westlaw 2010); MONT. CODE ANN. § 76-3-622(1)(e) (Westlaw 2010); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[139] *See supra* Part II.C.2.

[140] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[141] *See supra* note 14.

lacking, as noted previously.[142] It is, however, possible to at least suggest the laws' efficacy potential, based on their design. Again, this varies widely by state.

California's law is rigorous, requiring not just stringent evidence of sufficient water but also integrating that assessment with other water, land, and environmental planning mechanisms.[143] Yet California leaves a large loophole open, allowing any subdivision smaller than 500 homes to go unchecked by its assured supply requirement.[144]

Montana and Nevada employ mandatory assured supply assessments that apply to even smaller subdivisions, presumably sweeping most new development within their grasp.[145] Yet the evidence the assessments demand to prove water availability is more lax, or amorphous, and they are not as well integrated with larger planning mechanisms such as state environmental assessments, at least on their face.[146]

Arizona and Colorado, by contrast, impose comparatively stringent requirements for showing water availability (more akin to California's), especially Colorado, with its background system of water courts tamping down on paper water rights.[147] These states' laws, however, effectively risk massive noncompliance: Arizona by making its law mandatory only in dense urban areas,[148] and Colorado by leaving implementation and design to county discretion.[149] It should thus be clear that assured supply laws are inevitably the product of political compromise that varies from state to state; any emphasis on "thick" sustainability, or sustainability at all, varies with that, and is secondary anyway.

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[142] *See supra* Part I.C.

[143] Davies, *supra* note 6, at 1289-90.

[144] CAL. GOV'T CODE § 66473.7(a)(1) (Westlaw 2010).

[145] *See* MONT. CODE ANN. § 76-3-103(15) (Westlaw 2010) (defining "subdivision" as "a division of land or land so divided that it creates one or more parcels containing less than 160 acres that cannot be described as a one-quarter aliquot part of a United States government section"); NEV. REV. STAT. ANN. § 278.320 (Westlaw 2010) (defining "subdivision" as "any land, vacant or improved, which is divided or proposed to be divided into five or more lots").

[146] MONT. CODE ANN. § 76-3-622(1)(e) (2005); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[147] *See* ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010); *see also* ARIZ. REV. STAT. ANN. §§ 45-576, 45-576.07 (Westlaw 2010); ARIZ. ADMIN. CODE §§ R12-15-703 to -707 (2008); COLO. REV. STAT. ANN. §§ 37-92-101 to -204 (Westlaw 2010). Some Colorado localities impose even more stringent requirements, such as one county's mandate that water be available for periods as long as 300 years. *See, e.g.*, El Paso County, Colo. Land Development Code § 8.4.7, adm.elpasoco.com/NR/rdonlyres/C5F3EDDB-D480-49F5-9FF8-C64979B28B0E/0/LDCChapter8_Adopted_Rev0.pdf.

[148] *See* ARIZ. REV. STAT. ANN. §§ 32-2181(F), 45-108 (Westlaw 2010).

[149] *See* COLO. REV. STAT. ANN. 30-28-133(3)(d) (Westlaw 2010).

Indeed, review of these five state assured supply laws makes plain that there are two simple ways these laws can become more centered on sustainability. First, none of the laws directly address greater water conservation. If assured supply laws truly are focused on environmental protection, they should seek not just to ensure that water is there for growth, but to help make society more efficient in how it uses this valuable resource.[150] That is, after all, sustainability's core aim. Second, assured supply laws should not be championed as sprawl control measures. Sprawl certainly is a critical environmental problem, a clear manifestation of unsustainable living in general and on the water front more specifically. But assured supply laws are unlikely to stop sprawl.[151] Someday, policymakers may merge assured supply laws into larger legislative and planning proposals aimed at reducing sprawl and making land development more sustainable, and that may well be a course worth pursuing. Until then, however, assured supply laws should not be awarded high sustainability marks for goods they do not deliver.

V. CONCLUSION

The path from environmental law to sustainability law is unclear. It is murky and nebulous, and open to debate. The only way to get there from here is through experimentation, by feeling our way.

Assured supply laws are relatively new arrivals on the legal scene that dabble in sustainability. They push toward many of its goals, including putting prudent baselines in place today that should help stop unwise results tomorrow. They use planning as much as commands, an attribute both necessary for, and reflective of the squishiness of, sustainable development law.

The extent to which assured supply measures mark the way to sustainability law depends in part on their design, which varies from state to state. In general, they focus most on a single aspect of a single element of the larger sustainable development equation—water. They are still more narrow land use tool than expansive sustainable development regulator.

Eric Freyfogle recently wrote that good land use management must embrace three principles: "human utility, broadly defined," "ethical considerations," and "precaution" in the face of "ignorance."[152] From this, regulations must shift from seeing "land use issues in fragmented

[150] *See* Davies, *supra* note 6, at 1279.

[151] *See id.* at 1274-75.

[152] FREYFOGLE, *supra* note 75, at 146, 148, 153.

terms" to "tackl[ing] the problem directly"—"consider[ing] the landscape as a whole."[153] Assured supply laws as currently formulated address only one part of the larger problem: they remain focused on one aspect of the landscape, not all of it. With them, the path to sustainability law is still emerging.

[153] *Id.* at 145.