Plan Implementation Challenges in a Shrinking City
A Conformance Evaluation of Youngstown’s (OH) Comprehensive Plan With a Subsequent Zoning Code
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ABSTRACT
Problem, research strategy, and findings: In 2005, Youngstown (OH) released a widely publicized comprehensive plan, the Youngstown 2010 Citywide Plan. This plan emphasized “smart shrinkage,” reflecting the city’s downsized built environment and reduced population. In 2013 the city released the Youngstown Redevelopment Code, which was zoning intended to implement the comprehensive plan. In this study we measure whether the comprehensive plan conformed with the Youngstown Redevelopment Code by comparing land use designations on a parcel-by-parcel basis between the comprehensive plan, the pre-2013 code, and the Youngstown Redevelopment Code. To better understand the causality of conformance, we conducted semistructured interviews with framers of the comprehensive plan and the Youngstown Redevelopment Code documents. We find weak conformance between the comprehensive plan and the Youngstown Redevelopment Code; most of the comprehensive plan’s downsizing recommendations were unimplemented. There was close conformance between the pre-2013 code and the Youngstown Redevelopment Code, and most of the differences between them reflected the comprehensive plan’s recommendations. Informants attribute the weak conformance between the comprehensive plan and the Youngstown Redevelopment Code to many of the former’s ideas not being legally defensible. Changing political regimes, shifts in public opinion, and the driving need for economic investment were also cited as contributors to this weak conformance.

Takeaway for practice: Our findings indicate that implementing smart shrinkage land use recommendations in shrinking cities is likely to be challenging because legislators may resist codification of reduced populations and lessened economic capacity. Translating comprehensive plan ideas into zoning regulations may be subject to political, social, economic, and legal forces that limit plan enactment. These findings may apply to all cases where comprehensive plans require translation into zoning regulations for implementation. Local government officials and planners should consider these constraints on plan implementation when they are framing comprehensive plan strategies.

Keywords: comprehensive planning, plan evaluation, plan implementation, shrinking cities, smart shrinkage

The term smart shrinkage, coined in the early 2000s, indicates land use patterns, and ultimately the physical environment, can be altered to more closely match so-called shrinking cities’ reduced populations (Ehrenfeucht & Nelson, 2011; Hollander, Pallagst, Schwarz, & Popper, 2009; Popper & Popper, 2002; Schilling & Logan, 2008). In 2005, Youngstown (OH) released the Youngstown 2010 Citywide Plan (comprehensive plan), deemed the first comprehensive plan to adopt a smart shrinkage paradigm (Hollander et al., 2009; Wiechmann & Pallagst, 2012). Many other American shrinking cities later released similar plans (Hackworth, 2015; Hummel, 2015b).

In this study we examine conformance between the comprehensive plan and the 2013 Youngstown Redevelopment Code (2013 code), which was intended to implement the comprehensive plan in the form of revised zoning regulations. We find little conformance between the comprehensive plan and the 2013 code; little of the comprehensive plan was implemented in the 2013 code, and most of the 2013 code was unchanged from the pre-2013 code. Though the 2013 code’s changes were limited, many of these limited
changes did reflect the comprehensive plan’s recommendations. Interviews with actors involved in creating the comprehensive plan and the 2013 code indicate legal and economic barriers inhibited them from implementing the comprehensive plan’s land use ideas in the 2013 code. As a result, despite its innovative smart shrinkage concepts, the comprehensive plan ultimately had limited impact on Youngstown’s legal framework for planning, a cautionary finding for advocates of smart shrinkage through comprehensive planning in shrinking cities.

**Smart Shrinkage: Innovation or Pitfall?**

**Defining Smart Shrinkage**

Shrinking cities’ problems include population decline, economic hardship, social disruption, and abandonment of their built environment (Hollander et al., 2009). They present government officials and planners with substantial and difficult challenges. The grim reality of depopulation counters conventional growth-oriented expectations, creating both a “stigma” and a political taboo for government officials (Beauregard, 2003). In most cities, growing populations are the premise of urban planning regulations and practices, leading to a lack of preparation and an absence of corresponding strategies to confront the intertwined problems associated with urban shrinkage (Pallagst, 2010). In the early 21st century, a variety of scholars proposed new planning paradigms for shrinking cities (Hackworth, 2015; Hollander, 2011; LaCroix, 2010; Popper & Popper, 2002; Schilling & Logan, 2008; Wiechmann, 2008). Although the names of these new paradigms ranged from *shrink smart* to *smart decline, strategic shrinkage, and right sizing*, these ideas shared a conviction that urban planners required an alternative to conventional growth-oriented planning paradigms. The innovation of smart shrinkage was to institutionalize depopulation by formally discarding the expectation of growth and to assume a shrinking city could have a higher quality of life for its residents (Hummel, 2015a; Popper & Popper, 2002; Rybczynski & Linneman, 1999; Wiechmann, 2008). Furthermore, smart shrinkage implied adjusting a shrinking city’s physical plant, finances, and land uses to its lower population level, including reducing numbers of abandoned buildings, reducing municipal expenditures, coordinating infrastructure and amenities with lower population numbers, and aligning a shrinking city’s developed land to actual demand (Hollander, 2011; Hollander et al., 2009; Schilling & Logan, 2008). Smart shrinkage even proposed relocating people from mostly vacant neighborhoods to more “viable and vibrant” areas, as Detroit’s (MI) former mayor Dave Bing suggested (Oosting, 2010). Relocation was supposed to achieve denser and more economically efficient urban clusters within a shrinking city (Ehrenfeucht & Nelson, 2011; Hackworth, 2015).

**Smart Shrinkage in Planning Practice**

Some scholars have attempted to translate smart shrinkage planning ideals into guidelines for planning practice. Hollander and Németh (2011) call out five “aspects” of shrinking city urban planning that require planners’ engagement: vacant land, environmental and ecological pollution, social equity, infrastructure inefficiency, and density. Hummel (2015a) generalizes four comprehensive strategies for smart shrinkage: community development (e.g., targeted economic and infrastructure development), administration (e.g., shifts in form and function of municipal governance), democracy (e.g., consensus on strategic directions), and built environment (e.g., demolition, land banking, and greening initiatives). Hummel (2015a) adds that the built environment strategy is more important than the other three. Recently, some planning practices in shrinking cities have adopted smart shrinkage–related ideas (Hackworth, 2015; Hummel, 2015b). Some of these planning practices self-identified as smart shrinkage planning, whereas scholars identified others as smart shrinkage related. Examples include the Youngstown 2010 Citywide Plan (2005), Imagine Flint (MI) Master Plan (2013), City of Saginaw (MI) Master Plan 2011, the Detroit Future City Plan (2013), Buffalo’s (NY) 5 in 5 Demolition Plan, and the Sustainable Cleveland (OH) – 2019 Initiative. Smart shrinkage–related planning practices include planning initiatives such as urban comprehensive plans and district plans and also specific policy initiatives such as establishing land banks and civic engagement efforts.

**Evaluating Smart Shrinkage**

Since the initial proposal of the smart shrinkage paradigm, scholars have evaluated it both positively and negatively. Some acclaim this planning paradigm together with practices derived from it, whereas others have identified concerns and criticisms of smart shrinkage planning practice, even though all agree on the validity of the original concept.

Scholars have identified the limited role of civic engagement as one of smart shrinkage’s chief shortcomings. Although civic engagement is considered a major component of the smart shrinkage concept, scholars have found few plan ideas explicitly derived from civic engagement in smart shrinkage plans (Hackworth, 2015; Hollander & Németh, 2011); instead,
political leaders and municipal officials seem to develop most smart shrinkage plan ideas. In other words, smart shrinkage practice has retained top-down elements from historic planning approaches (Bernt et al., 2014). Hollander (2009) claims that in one American shrinking city, local authorities manipulated civic engagement, creating city districts with few residents to attain fuller control over public meeting decisions. Another criticism of smart shrinkage planning is that local authorities may presume a “quiet and docile” public that will tolerate radical planning, similar to the top-down planning paradigm of the mid-20th century that early proponents of smart shrinkage have widely repudiated (Hollander & Németh, 2011). The arguably undemocratic elements of smart shrinkage planning recall for some scholars the “bulldozer” trauma of 1960s urban redevelopment (Hackworth, 2015; Wiechmann & Pallagst, 2012).

Other elements of planning practice in shrinking cities provide indications that smart shrinkage might encounter obstacles in the built environment itself. Although many scholars have recommended the downsizing of the shrinking city built environment through demolition, urban greening, green infrastructure, or urban agriculture (Bernt, 2009; LaCroix, 2010; Martinez-Fernandez, Audirac, Fol, & Cunningham-Sabot, 2012; Rybczynski & Linneman, 1999; Schilling & Logan, 2008), publicly acquiring these properties may require tax foreclosure or imposing code enforcement liens (Accordino & Johnson, 2000; Schilling & Logan, 2008; Tappendorf & Denzin, 2011). However, inhabited tax-compliant properties, no matter what their level of dilapidation, are difficult to transfer to public ownership, and it is likely to prove difficult to implement smart shrinkage strategies on such properties (Beckman, 2010; Ryan, 2012). Resistance to eminent domain (Kelo v. City of New London 2005) has also chilled city officials’ enthusiasm for the property acquisition needed to implement some smart shrinkage measures.

Some scholars (Großmann, Bontje, Haase, & Mykhnenko, 2013; Hollander et al., 2009; Martinez-Fernandez et al., 2012) have suggested “right sizing” shrinking cities’ public services by reducing or ending services in highly vacant areas. However, city infrastructure is complex and intertwined, resisting easy deletion of any single portion, and shrinking cities have only been able to abandon street infrastructure in neighborhoods with near-total abandonment (J. McNally, personal communication, October 29, 2017; Robertson, 2016). Others have argued that withdrawing needed public services will further exacerbate social inequality by further depressing communities where impoverished people reside (Clement & Kanai, 2015). Threatened deletions of city services, first proposed in New York City in the 1970s (Starr, 1976; Wallace & Wallace, 1998, 2011), have engendered fierce grassroots resistance in some shrinking cities, including claims of “urban triage” in Detroit (Kirkpatrick, 2015) and the “Green Dot” controversy in post-Katrina (2005) New Orleans (LA; Fields, 2009).

Comprehensive Planning, Implementation, and Evaluation in Youngstown

Urban Comprehensive Plans’ Relationship to Zoning

To date, most smart shrinkage plans, such as Detroit Future City (2013), are nonstatutory, or hortatory, comprehensive plans (Haar, 1955b). How, and whether, these plans have been implemented has not yet been examined. Zoning is one means of plan implementation, and thus examining zoning conformance with a smart shrinkage plan is one way to measure smart shrinkage plan implementation. In general, not all nonstatutory plans are succeeded by complementary zoning ordinances. Theoretically, a smart shrinkage comprehensive plan that has been officially accepted by the city legislature (e.g., City of Flint, 2013) already has, will have, or should have a subsequently created zoning ordinance to reflect the plan’s suggestions or exhortations (Friedmann, 1971; Haar, 1955b). Yet the relationship between zoning and comprehensive plans is fraught, controversial, and not at all straightforward. According to the Standard State Zoning Enabling Act (1922), zoning is to be made in accordance with a comprehensive plan, although the term comprehensive plan is clarified by a footnote in the 1922 text to designate a “comprehensive study” that is not necessarily an independent comprehensive plan. Mandelker (1976) further clarifies that the comprehensive plan requirement can be fulfilled by the zoning ordinance itself. In other words, zoning alone can be understood as including a future intention sufficiently comprehensive to obviate a need for a comprehensive study or comprehensive plan.

Haar (1955a) also notes that zoning is only one of many ways to implement comprehensive plans and that, given the comprehensive plan’s lack of legal enforcement and limited presence in legislation, such plans can only act as a hortatory means of guiding local land use development. Recent judicial studies show the relationship between comprehensive plans and zoning in the United States as divided into three categories that reflect variances between different state perspectives (Sullivan, 2011; Tarlock, 2014; Wolf, 2014). First, many states hold a “unitary view” that the zoning
ordinance is the plan itself; thus, no conformance is required between these two because the second is unnecessary. A second “relevance view,” which is the current majority view, is that a comprehensive plan is relevant, and therefore a factor, in determining a zoning ordinance’s validity, but is not the sole factor. A third “restrictive view” held by a few state legislatures requires consistency between comprehensive plans and zoning, lest zoning be otherwise invalidated.

Evaluating Plan Implementation
Despite the varied relationships between comprehensive plans and zoning, some shrinking cities’ recent zoning resolutions or ordinances, including that of Youngstown and Flint, specifically state their intended accordance with a comprehensive plan. For the purposes of our study, we therefore argue that examining zoning conformance with a nonstatutory comprehensive plan is a legitimate way to evaluate comprehensive plan implementation, especially because zoning plays an undeniably critical role in shaping a city’s physical environment. Given that previous studies (Hackworth, 2015; Hollander & Németh, 2011; Hummel, 2015a, 2015b) primarily focus on discussing the theory of smart shrinkage and describing smart shrinkage’s role in planning practice, it is valuable to empirically understand how a smart shrinkage comprehensive plan is implemented.

Plan implementation evaluation is a well-established field of planning literature, with categories of research including timing, evaluators, objectives, and methodologies (Alexander & Faludi, 1989; Alterman & Hill, 1978; Baer, 1997; Laurian et al., 2004; Mastop & Faludi, 1997; Oliveira & Pinho, 2010; Talen, 1996, 1997). There are two principal categories of plan evaluation, known as conformance-based evaluation and performance-based evaluation. Their essential difference lies in divergent views of the function of planning. Conformance-based evaluation views planning as a way of future control (Wildavsky, 1973). Therefore, conformance-based evaluators consider the plan a blueprint: The more that has been realized pursuant to the plan, the more successful implementation is. Conformance-based evaluation views the literal realization of a plan’s goals as important. Performance-based evaluation views policy development as an incremental process in which achieving a final goal is a limited aim (Lindblom, 1959). Thus, performance-based evaluators consider a plan a decision-making framework rather than a blueprint, in which any desirable result is evaluated as success, even if this desirable result departs from the plan. In performance-based evaluation, it is more important to achieve desirable goals than it is to literally implement the plan’s recommendations.

Because both approaches to plan evaluation are considered valid but also potentially in conflict, most scholars typically apply one or the other when conducting an empirical evaluation of one or several plans (Alterman & Hill, 1978; Faludi, 2006; Laurian et al., 2004; Loh, 2011). In some cases, scholars apply both conformance- and performance methodologies (Altes, 2006; Berke et al., 2006). Altes (2006) finds a plan may be considered well implemented by the standards of conformance-based evaluation but also poorly implemented by the standards of performance-based evaluation and vice versa. Berke et al. (2006) find applying both conformance- and performance-based methodologies can provide a more comprehensive perspective, permitting exploration of a plan’s multiple conceptions.

Comprehensive Planning in Youngstown
Youngstown’s population peaked in 1930 at 170,002 and then stagnated after the Great Depression. The city once had the third largest steel production in the United States (City of Youngstown, 2005), but decline in the 1970s devastated the industry and spurred long-term depopulation (Linkon & Russo, 2002). Youngstown’s population declined almost 60% over 50 years, from 166,689 in 1960 to 66,982 in 2010. Today, the city’s landscape resembles that of other deindustrialized U.S. cities, with a high-rise, highly vacant downtown ringed by parking lots and vacant land; an abundance of highway infrastructure and underused, even abandoned, rail infrastructure; and a surrounding ring of single-family or two-family housing intermingled with small multifamily buildings, with lower density postwar suburban-style housing in the city’s peripheral areas. Large industrial parcels, now mostly vacant, are located throughout the city and especially along river and rail corridors.

Youngstown’s comprehensive plans date from 1951, when the city released a growth-oriented plan, and 1974, when a revised plan projected the city would attain a population of between 200,000 and 250,000 (City of Youngstown, 2005). The city’s zoning was updated in 1969 pursuant to the 1951 comprehensive plan and has been updated continuously since then. In 2005, Youngstown became the first shrinking city in the United States to release a smart shrinkage-oriented plan, the Youngstown 2010 Citywide Plan (Figure 1). This comprehensive plan stated Youngstown was a smaller city that would likely become even smaller in the expected future. The plan included two sections,
Figure 1. Land use vision of the Youngstown 2010 Citywide Plan (top) and the 2013 Youngstown Redevelopment Code (bottom). In the plan, many residential and commercial districts were projected as open space, whereas most heavy industry was projected as new land use “industrial green.” In the 2013 code, much industrial land was rezoned, but rezoning of residential and commercial land was limited.

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labeled “Vision” and “Plan.” The Vision section contained expectations of Youngstown’s future, many of which were derived from a civic engagement process that involved more than 5,000 city residents. The comprehensive plan’s authors generalized four vision statements from this process: accepting Youngstown as a smaller city; defining Youngstown’s new role in the regional economy; improving Youngstown’s image and enhancing the city’s quality of life; and calling for action, or implementing the plan (City of Youngstown, 2005). The Plan section proposed four themes to shape the city’s future land use: a “green network,” “competitive industrial districts,” “viable neighborhoods,” and a “vibrant core” (City of Youngstown, 2005, p. 45).

Following the publication of the Youngstown 2010 Citywide Plan in 2005, both popular media and professional organizations lauded the plan for its innovation. Accolades included the American Planning Association’s 2007 National Planning Excellence Award for Public Outreach (Skolnick, 2006) and the New York Times Magazine’s Sixth Annual Year’s Best Idea Award in America (Lanks, 2006). Scholars also acclaimed the comprehensive plan with phrases like “the nation’s first shrinking city comprehensive plan” (Schilling & Logan, 2008, p. 460); “the first U.S. shrinking city to break with the growth machine” (Wiechmann & Pallagst, 2012, p. 275); and “a break from traditional growth-oriented planning” (Schatz, 2013, p. 88). Following the Youngstown 2010 Citywide Plan, Detroit, Flint, Saginaw (MI), Rochester (NY), Cleveland, and Buffalo all released plans whose attitude toward smart shrinkage bore substantial similarity to that of Youngstown’s plan.

The Youngstown 2010 Citywide Plan stated the city lacked an effective and up-to-date zoning ordinance for code enforcement (Rhodes & Russo, 2013), and in 2013 the City of Youngstown released a new zoning ordinance, the Youngtown Redevelopment Code (2013 code; see Figure 1). Since 2014, Youngstown has issued additional “neighborhood action plans” intended to strategize and identify code enforcement issues at the neighborhood level. The 2013 code viewed compliance with the plan as an important goal. The first of the 2013 code’s 18 stated purposes was to “encourage the most appropriate and effective use of land, buildings, and other structures throughout the City of Youngstown in accordance with a comprehensive plan” (City of Youngstown, 2013, p. 1). Another stated purpose of the 2013 code, “Relationship to the Adopted Comprehensive Plan,” was “to implement the goals and objectives of the city’s comprehensive plan … The provisions of this Code shall be interpreted liberally to achieve the goals and objectives of the city’s comprehensive plan” (City of Youngstown, 2013, p. 2).

The state of Ohio holds a unitary view of the comprehensive plan’s relationship to zoning. Zoning is not legally required to be in conformance with a comprehensive plan in Ohio, and there is no liability if a zoning ordinance is inconsistent with a preceding comprehensive plan (Sullivan & Bragar, 2016). Thus, the 2013 code had no legal mandate to be in conformance with the comprehensive plan. However, the 2013 code’s stated goals of conformance with the plan reinforces our interest for the purposes of this study in better understanding degrees of conformance between the comprehensive plan and the 2013 code, the reasons for conformance, and/or the lack thereof.

Methodology

The comprehensive plan’s primary intention was to project a land use future for Youngstown in which formerly built-up areas would have new, lower density land uses: For example, a highly vacant and abandoned commercial district zoned as commercial space in the existing city might be projected as open space by the plan. The 2013 code might or might not reflect this plan intention in a rezoning of this commercial district as open space.

In this study we examine two aspects of the comprehensive plan’s and 2013 code’s land use conformity. First, we examine the spatial conformity of land use designations, which determines whether or not the shape or form of land use areas of the two documents differed; second, we examine the quantity of conformity between the land use designations of the two documents, meaning the difference in area (in hectares) between the land use areas of the two documents. We overlay the maps of both documents to find the spatial conformities and disparities of their land use designations and calculate each document’s land use designation’s number of parcels and area. Our study thus combines conformance-based land use evaluation, or the spatial overlap of land uses between the comprehensive plan and 2013 code, with certain elements of performance-based evaluation—for example, the overall amount of open space areas between the comprehensive plan and the 2013 code—to see the extent to which the idea of “clean and green” was implemented.

To measure the conformance between the comprehensive plan and 2013 code, we examine land use area and geometries. Land use is a significant component of the 2013 code, and land use is also the most important overlap between the comprehensive plan and the 2013 code. Before comparing the comprehensive plan and the 2013 code, we reviewed methodologies of plan implementation studies with a conformance-based perspective. To measure conformance, Alterman and Hill (1978) propose a uniform grid of cells (1 ha for each cell) to visually
interpret the accordance and deviation between an outline plan’s land use layout and the detailed plan’s land use layout. This method lacks accuracy and would be laborious if applied to a large area with parcel-level data. Johnston, Schwartz, and Tracy (1984) use accumulative statistics to compare the conformity of general plan amendments between 1978 and 1981 that related to agricultural land conservation in community plans. In recent decades, with the introduction of geographic information systems (GIS) to planning research, an increasing number of empirical plan evaluation studies have used GIS to conduct more complex evaluations with large data sets. Brody and Highfield (2005) examine the conformity of Florida wetland development permits between 1993 and 2003 with statewide land use compiled from different local comprehensive plans. Chapin, Deyle, and Baker (2008) propose a parcel-based GIS method, improving upon Alterman and Hill (1978) with a less labor-consuming method to examine the amount and location of residential land inside and outside hurricane hazard zones designated by local comprehensive plans. Additional conformance-based evaluation studies have been conducted subsequently with similar parcel-based GIS methods (Deyle, Chapin, & Baker, 2008; Loh, 2011).

Based on the preceding conformance-based evaluation studies, we adopted a parcel-based evaluation method by using GIS to code three different sets of land use classifications into a unified file with eight categories (see Table 1) and intersecting geometries among different land use maps, thus allowing us to analyze conformance. We acquired three land use data sets in shapefile format (comprehensive plan, the 2013 code, and pre-2013 code) from Youngstown State University’s Regional Economic Development Initiative. This institution has contracted with Youngstown’s city government to provide data and GIS services. We also acquired Youngstown’s planning and zoning ordinance documents (comprehensive plan, the 2013 code, and pre-2013 code) from Youngstown’s Department of Community Planning and Economic Development and Youngstown’s government website (City of Youngstown, 2013).

We followed three steps to quantify the extent of conformance: first, we compared the comprehensive plan with the 2013 code and then compared the pre-2013 code with the 2013 code; last, we compared the plan’s land use designations with the nonconformance between the 2013 code and pre-2013 code. We also interviewed several framers and participants of the comprehensive plan and 2013 code to investigate the reasons for nonconformance. For more information on methodology, a list of interviewees, and interview questions, please see the Technical Appendix online.

Findings
A Conformance-Based Evaluation of the Youngstown 2010 Citywide Plan and the 2013 Code
Our study reveals partial conformance between the comprehensive plan and the 2013 code (Figure 2). However, a large number of parcels (21.7%, or 13,538 parcels out of 62,346, comprising 32.4% of Youngstown’s land area) were nonconforming, signifying different land use designations between the comprehensive plan and the 2013 code, whereas the other parcels (2,408 ha out of 7,422, comprising 67.6% of Youngstown’s land area) were conforming, signifying land use designations proposed by the comprehensive plan were designated similarly by the 2013 code.

Conformance differed dramatically among different land use types. Open space was one of the least conforming uses: Although the comprehensive plan had called for significant designation of vacant urban land as open or green space, very few of its open space designations were present in the 2013 code, therefore most of the plan’s open space parcels were nonconforming (Table 2). The comprehensive plan proposed an ambitious network of green and open spaces, much of it converted from presumably highly vacant residential or commercial areas (Figure 3), but the 2013 code had only fragments of the comprehensive plan’s open space network, meaning the earlier plan’s ambitious open space plan was mostly unrealized in Youngstown’s new zoning (Figure 3).

In opposition to the limited realization of the comprehensive plan’s open space proposals, the area of residential land uses had a very high conformance rate (see Table 2), meaning that almost all of the parcels proposed as residential by the comprehensive plan were also proposed as residential in the 2013 code. This high spatial conformance did not reflect a conformance in residential land area: The 2013 code contained many more residential parcels than did the plan. Although the comprehensive plan called for a 30% decrease in residential land because of the city’s overabundance of residential land and high housing vacancy, the 2013 code contained instead that much more residential land than the plan, an increase achieved by designating much of the plan’s proposed open space land as residential land instead.

Overall, more than three-fourths of the land area the comprehensive plan called for to become open space was designated instead as residential land by the 2013 code. This indicates a conservative turn in the 2013 code; whereas the plan had projected converting mostly vacant city land, including residential, to open space, the 2013 code left this recommendation mostly unimplemented.
Table 1
Comparison of land use codes in the comprehensive plan, 2013 code, and pre-2013 code.

| Reclassified (8) | Comprehensive plan (15) | 2013 Code (25) | Pre-2013 code (17) |
|------------------|--------------------------|----------------|--------------------|
| **Single-family residential (1)** | Single-family residential (1) | Single-family residential (6) | Single-family residential (4) |
| Single-family residential | Single, two-, and three-family residential | RS-20 Single-family | R-20 Single-family |
| | | RS-12 Single-family | R-12 Single-family |
| | | RS-7.2 Single-family | R-7.2 Single-family |
| | | RT-5.5 One- and two-family | R-5.5 One- and two-family |
| | | RS-3.0 Single-family small lot | |
| | | RS-CF Single-family Crandall form | |
| **Residential mixed use (1)** | Residential mixed use (1) | MU-R Residential reuse | M-U Mixed use |
| **Multifamily residential (1)** | Multifamily residential (1) | Multifamily residential (3) | Multifamily residential (3) |
| Multifamily residential | Multifamily residential | RM-2.2 Multifamily | R-A Apartment |
| | | RM-1.5 Multifamily | R-1.5 Multifamily |
| | | RM-1.0 Multifamily | R-1.0 Multifamily |
| **Industrial (2)** | Industrial (3) | Industrial (2) | Industrial (2) |
| Industrial green | Industrial green | IG Industrial green | I-L Industrial limited |
| Industrial unlimited | Industrial light | IU Industrial unlimited | I-H Industrial unlimited |
| | | Industrial heavy | |
| **Open space (1)** | Open space (2) | Open space (1) | Open space (1) |
| Open space | Recreation/open space | OS Open space | R-20 Single-family (permitted use) |

(Continued)
Given that Youngstown is a mostly deindustrialized city, the comprehensive plan proposed substantial conversion of industrial land to “industrial green” or open space uses. Although the overall area of industrial land in the city did not shift much between the plan and 2013 code (1,277 ha of industrial green in the comprehensive plan versus 1,221 ha in the 2013 code), the location of parcels designated as industrial did change.

| Reclassified (8) | Comprehensive plan (15) | 2013 Code (25) | Pre-2013 code (17) |
|------------------|--------------------------|----------------|--------------------|
| Agriculture (1)  | Agriculture (1)          | Agriculture (1) | Agriculture (0)    |
| Agriculture      | AW Agricultural/wetlands |                 |                    |
| Institutional (1)| Institutional (1)        | Institutional (1)| Institutional (1) |
| Institutional    | Institutional            | MU-I Institutional | I Institutional   |
| Business (1)     | Business (2)             | Business (5)    | Business (4)      |
| Business         | MU-N Neighborhood        | B-4 Local       |                    |
| Business CBD     | MU-C Community           | B-3 Community   |                    |
|                  | B-2 General              |                |                    |
|                  | MU-UF Uptown form        |                |                    |
|                  | MU-DF Downtown           | B-1 Central     |                    |
|                  | MU-FF Federal plaza      |                |                    |
| Overlay districts (0) | Overlay districts (4) | Overlay districts (5) | Overlay districts (1) |
| Mahoning River Corridor of Opportunity | PDO Planned development overlay | PD Planned development | |
| YMHA Hope VI Planned Residential | CDO Central design overlay |                   | |
| Smoky Hollow Planned Residential | FPO Flood protection overlay |                   | |
| Priority Business | HPO Historic preservation overlay | LSO Limited services overlay | |

Note: The first column shows how land use codes were reclassified to permit GIS-based conformance analysis. Source: City of Youngstown (2005, 2013). This table is in accordance with the 1102.01 Summary Table, Comparison of Zone Districts (City of Youngstown, 2013, p. 6).

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Figure 2. Nonconformance between the comprehensive plan and the 2013 code, with only nonconforming parcels shown. Top map shows nonconforming parcels with comprehensive plan land use designations; bottom map shows nonconforming parcels with 2013 code land use designations. Many parcels proposed by the plan for other land uses (top) were designated by the 2013 code as single-family residential instead (bottom).

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dramatically, leading to high nonconformance (from the perspective of area) for industrial green land and even higher for industrial land (Table 2).

A Conformance-Based Evaluation of the Youngstown 2010 Citywide Plan, 2013 Code, and Pre-2013 Code

Evaluating conformance between the pre-2013 and 2013 codes reveals high conformance between these two zoning documents (Figure 4, Table 3). Conformance of land use designations overall between the pre-2013 and 2013 codes was very high, with most parcels remaining unchanged in their land use designations (Table 3). In other words, the 2013 code only rezoned 2.6% of the city’s parcels, leaving the rest unchanged. Because some of the rezoned parcels were large in area, there was a lower conformance in parcel area between the 2013 code and the pre-2013 code.

Despite relatively high conformance between the pre-2013 and 2013 codes, some of the comprehensive plan’s land use designations for open space and industrial green land were realized. Whereas the plan’s call for almost 1,500 ha of designated open space was mostly unrealized, the 2013 code did designate more than two times as much open space as the pre-2013 code. The later code also partially fulfilled the plan’s aim of converting abandoned or underused heavy industrial land to industrial green land. Of the 288 ha of industrial unlimited land that changed land use designation between the pre-2013 and 2013 codes, 256 ha were rezoned as industrial green land by the 2013 code. This change reduced the area of other industrially zoned land in the city by 42%.

Table 2

| Land Use Category         | Comprehensive Plan Parcels | Area (ha) | 2013 Code Parcels | Area (ha) | Conform Parcels | Area (ha) | Nonconform Parcels | Area (ha) | Conformance Rate (%) |
|---------------------------|----------------------------|----------|------------------|----------|-----------------|----------|--------------------|----------|----------------------|
| Single-family residential | 46,600                     | 3,414    | 48,961           | 4,184    | 42,736          | 3,032    | 3,864              | 382      | 91.7                 |
| Multifamily residential   | 316                        | 76       | 3,077            | 348      | 72              | 37       | 244                | 39       | 22.8                 |
| Industrial green          | 6,060                      | 1,277    | 3,693            | 1,221    | 2,724           | 832      | 3,336              | 446      | 45.0                 |
| Industrial unlimited      | 1,349                      | 380      | 252              | 392      | 641             | 110      | 708                | 271      | 47.5                 |
| Open space                | 3,768                      | 1,460    | 361              | 589      | 279             | 554      | 3,489              | 906      | 7.4                  |
| Agriculture               | 618                        | 161      | 1                | 8        | 0               | 0        | 618                | 161      | 0.0                  |
| Institutional             | 593                        | 310      | 1,283            | 171      | 180             | 203      | 413                | 107      | 30.4                 |
| Business                  | 3,042                      | 343      | 4,718            | 509      | 2,186           | 245      | 856                | 97       | 71.9                 |
| Total                     | 62,346                     | 7,422    | 62,346           | 7,422    | 48,818          | 5,014    | 13,528             | 2,408    | 78.3                 | 67.6               |

Note: For each category, total of conform and nonconform figures equals comprehensive plan figure.

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Figure 3. Open space land use as proposed by the comprehensive plan (top) and the 2013 code (bottom). The plan proposed an ambitious open space network, including green corridors along streets, but the 2013 code designated open space only in existing parks. The difference between top and bottom maps equals nonconformance and can be seen in Figure 2.

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Figure 4. Nonconformance between the pre-2013 code and the 2013 code, with only nonconforming parcels shown. Top map shows nonconforming parcels with pre-2013 code land use designations; bottom map shows nonconforming parcels with 2013 code land use designations. Many parcels zoned as residential in the pre-2013 code were rezoned as open space by the 2013 code, whereas a few business and industrially zoned areas in the pre-2013 code were rezoned as industrial green.

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Residential land conformance between the pre-2013 and 2013 codes was very high. The 2013 code's total residential land area, including single-family and multifamily residential, decreased very slightly (see Table 3). Thus, the comprehensive plan's proposal to confront Youngstown's high levels of abandonment in residential areas by reducing residential land uses by 30% and converting this land to open space or industrial uses was left mostly unrealized, as demonstrated by the 2013 code's continuation of the pre-2013 code's land use arrangement.

Ultimately, the 2013 code was a modest revision of the pre-2013 code more than an implementation of the comprehensive plan. The plan had ambitiously proposed redesignating much of the city's underused land; the 2013 code instead left most of these areas as they were, increasing open space and reducing residential land areas only modestly. The plan's industrial land transformation proposals achieved the most success, with industrial green districts increasing significantly, whereas heavy industrial land was reduced by almost half.

We further examined conformance of the comprehensive plan land use designations with the nonconformance or differences in land use designations between the pre-2013 and 2013 codes. Though one might assume these are identical, this was not the case; the 2013 code proposed new land use designations different from those of the pre-2013 code and different from those of the plan as well. These new land uses were nonconforming among the 2013 code, the pre-2013 code, and the comprehensive plan, but they were limited in area. Out of 820 ha of land whose land uses changed between the pre-2013 code and the 2013 code, only 125 ha were nonconforming with the land use changes proposed by the comprehensive plan. Most nonconforming parcels were in the industrial green, open space, and business land use categories (see Figure 5, Table 4). In other words, although the plan proposed dramatic land use changes, most of

| Table 3                                                                 | Pre-2013 code | 2013 Code | Conform | Nonconform | Conformance rate (%) |
|------------------------------------------------------------------------|---------------|-----------|---------|------------|----------------------|
|                                                                        | Parcels       | Area (ha) | Parcels  | Area (ha)  | Parcels  | Area (ha) | Parcels | Area (ha) | Parcels | Area (ha) | Parcels | Area (ha) |
| Single-family residential                                              | 48,530        | 4,418     | 48,107  | 4,184      | 48,100   | 4,179     | 430     | 239       | 99.1    | 94.6    |
| Multifamily residential                                                | 3,103         | 379       | 3,066   | 348        | 3,066    | 348       | 37      | 31        | 98.8    | 91.8    |
| Industrial green                                                       | 2,576         | 928       | 3,655   | 1,221      | 2,565    | 915       | 11      | 13        | 99.6    | 98.6    |
| Industrial unlimited                                                   | 637           | 680       | 273     | 392        | 273      | 392       | 364     | 288       | 42.9    | 57.6    |
| Open space                                                            | 59            | 280       | 364     | 589        | 57       | 278       | 2       | 2         | 96.6    | 99.3    |
| Agriculture                                                            | 0             | 0         | 1       | 8          | 0        | 0         | 0       | 0         | 0.0     | 0.0     |
| Institutional                                                          | 1,259         | 217       | 1,281   | 171        | 1,194    | 164       | 65      | 53        | 94.8    | 75.6    |
| Business                                                              | 5,250         | 520       | 4,667   | 509        | 4,573    | 473       | 677     | 47        | 87.1    | 91.0    |
| Total                                                                 | 61,414        | 7,422     | 61,414  | 7,422      | 59,828   | 6,749     | 1,586   | 673       | 97.4    | 90.9    |

Note: For each category, total of conform and nonconform areas equals pre-2013 code figure.
Figure 5. Parcels rezoned from the pre-2013 code by the 2013 code, showing conformance and nonconformance of rezoned parcels with the comprehensive plan. Only rezoned parcels are shown. Top map shows conforming parcels in dark gray and nonconforming parcels with 2013 code land use designations. Bottom map shows conforming parcels in dark gray and nonconforming parcels with comprehensive plan land use designations. Rezoned, nonconforming parcels did not demonstrate any obvious pattern.
which were unimplemented, the great majority of the land use changes proposed by the 2013 code were in fact consistent with those proposed by the comprehensive plan.

**Perspective From Interviews**
A small number of semistructured interviews with comprehensive plan and 2013 code informants clarified the causality of the basic findings of our study's quantitative analysis. We asked informants what explained the study's conformance and nonconformance findings, both between the comprehensive plan and the 2013 code and between the pre-2013 and 2013 codes. The aim of these interviews was not to comprehensively account for the causality of the quantitative findings but to lend additional perspective to our interpretations of these findings.

Informants noted that comprehensive plans overall were relatively weak instruments by which to realize land use policy. This weakness in part stemmed from the comprehensive plan's legal condition in Ohio, a state holding the unitary view that a comprehensive plan is neither required nor important and that zoning alone is a sufficient instrument to project desired land uses. Ian Beniston, founder of the activist and successful Youngstown Neighborhood Development Corporation, summarized this situation succinctly, stating, “In Ohio, a comprehensive plan really means nothing, [but] the zoning code does mean something” (March 31, 2015). The comprehensive plan may have had political support, but this political support could not provide the legal basis for requiring enforcement of the plan’s land use concepts.

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**Table 4**

**Summary statistics of conformance between the zoning change between pre-2013 code and 2013 code and the same area in the comprehensive plan.**

| Zoning change        | Parcels | Area (ha) | Parcels | Area (ha) | Parcels | Area (ha) | Parcels | Area (ha) | Parcels | Area (ha) | Conformance rate (%) |
|----------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|-----------------------|
|                      |         |           |         |           |         |           |         |           |         |           |                       |
| Single-family residential | 7       | 5         | 85      | 34        | 5       | 4         | 2       | 1         | 71.4   | 80.0      |                       |
| Multifamily residential | 2       | 1         |         |           |         |           |         |           |         |           |                       |
| Industrial green     | 1,108   | 320       | 1,075   | 291       | 1,064   | 283       | 44      | 37        | 96.0   | 88.4      |                       |
| Industrial unlimited |         | 2         | 2       |           |         |           |         |           |         |           |                       |
| Open space           | 332     | 426       | 285     | 459       | 247     | 387       | 85      | 39        | 74.4   | 90.8      |                       |
| Agriculture          | 1       | 8         |         |           | 1       | 8         | 0       | 0         | 0.0    | 0.0       |                       |
| Institutional        | 87      | 6         | 105     | 17        | 83      | 6         | 4       | 0         | 95.4   | 100.0     |                       |
| Business             | 97      | 55        | 78      | 16        | 54      | 15        | 43      | 40        | 55.7   | 27.3      |                       |
| Total                | 1,632   | 820       | 1,632   | 820       | 1,453   | 695       | 179     | 125       | 89.0   | 84.8      |                       |

Note: For each category, total of conform and nonconform areas equals zoning change.

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Informants also observed zoning is a challenging instrument with which to project novel land use arrangements because of the influence of historical zoning. Tom Finnerty, a planning scholar at Youngstown State University, stated, “In Ohio, when you get new zoning, everything is basically grandfathered from the old zoning, that’s why you end up with a hodgepodge” (April 22, 2015). The 2013 code reflects this “hodgepodge,” leaving old zoning boundaries mostly intact and relying on the simple redesignation of certain zoning districts to achieve its aims.

Perhaps the most serious obstacles to the comprehensive plan’s implementation were property rights and community sentiments. Abandoned parcels may have looked like open space, but they had owners, were often taxpaying, and represented potential sites of revitalization to both neighborhood residents and city council members. The plan advocated smart shrinkage by proposing the conversion of these parcels to open space, but informants noted the plan ignored both potential legal challenges to widespread rezoning and the resource (funding) constraints that would limit an ambitious land use reorganization.

Vacant parcels’ ownership structure was the first barrier to the plan’s realization. Many of the residential land parcels proposed for conversion to open space by the comprehensive plan were privately held and tax compliant, even if vacant. Informants said rezoning privately owned residential land as open space ran the risk of making Youngstown’s government subject to takings claims, in which owners would have argued that residential land conversions to open space would deprive them (the owners) of that land’s economic use. Moreover, converting vacant residential land to open space would have required substantial condemnation, requiring public resources for compensation to owners. Don Elliott, the planning consultant who directed the development of the 2013 code, called out Youngstown’s financial inability to buy out landowners: “[Buyouts are] one of those things that requires you to get out your checkbook, [but] Youngstown’s attitude was, ‘We don’t have a checkbook’” (April 25, 2015). Fiscally straitened Youngstown thus perceived land compensation processes and costs as both unrealizable and undesirable, killing the possibility of converting vacant parcels to open space.

The comprehensive plan’s implementation by the 2013 code also raised resident concerns. Although the plan process involved substantial citizen engagement, residents of high-vacancy neighborhoods did not find the potential conversion of residential land to open space appealing, even if the plan’s concepts had initially seemed exciting. Beniston noted this caution succinctly: “When the rubber hits the road, people do get nervous, and things change.” In Youngstown, this change translated into citizen reluctance to support radically reorganizing land use categories in disinvested residential neighborhoods.

Changing politics also adversely affected the implementation of the comprehensive plan. Mayor Jay Williams (2005–2011) promoted the plan’s creation but left office by the time the 2013 code was being formulated. Williams’ departure removed a key advocate: The city’s planning director, Bill D’Avignon, believes “had Mayor Williams stayed on, the [2013] code would have been more reflective of the ideas in the 2010 plan.” Informants noted the subsequent mayor had little political capital to gain from, and thus little motivation to implement, his predecessor’s comprehensive plan, both because of the aforementioned legal concerns and because of fear of provoking citizen discomfort. Informants noted that the city council, mirroring the new mayor’s concerns, adopted a cautious approach to the 2013 code’s formulation intended to minimize potential challenges, both legal and civic.

Only one of the comprehensive plan’s proposed land use changes was well received: the shift from heavy to green industry. When asked about the 2013 code’s industrial land use rezoning, interviewees stated the code’s realization of the plan’s land use recommendations like industrial green could be perceived either pessimistically as a renaming of pre-2013 code districts of either “industrial limited” and “industrial heavy” or more optimistically as a more flexible land use classification for formerly industrial districts in substantial need of redevelopment. This statement was verified by our finding that that 256 ha of pre-2013 code industrial unlimited was rezoned as industrial green in the 2013 code, a simple name change that accounted for 87% of the increase in the 2013 code’s industrial green land. Interviewee Don Elliot explained this successful implementation of a plan idea by noting as a shrinking city, Youngstown was eager for investment, and the city could hardly say no to possible development opportunities for its underused industrial land.

Smart Shrinkage: Easy to Say, Harder to Realize?

Ultimately, the Youngstown 2010 Citywide Plan, which boldly advocated the abandonment of the growth paradigm in Youngstown’s planning in favor of smart shrinkage, was only partially implemented by the Youngstown Redevelopment Code of 2013. The code left many of its predecessor plan’s suggested land use changes pertaining to residential and commercial land
unrealized while implementing, but somewhat diffusing, the plan’s recommended changes to industrial land. Smart shrinkage, in other words, was only partially achieved in Youngstown: Converting a shrinking city to open space and low-density industrial land was conceptually appealing in a comprehensive plan, but implementing these conversions needed to intersect with political, fiscal, and social realities. Youngstown may have been shrinking, but many of its political institutions, landowners, and residents saw little benefit to rezoning privately owned residential and commercial land that might someday be returned to a productive and profitable purpose. On the other hand, rezoning industrial land to permit additional development opportunities was uncontroversial and the comprehensive plan’s most clearly implemented suggestion.

Youngstown’s challenges in implementing smart shrinkage parallels difficulties that Downs (2005) observes in the implementation of “smart growth” when he asked, “Where is Smart Growth being implemented most effectively?” (p. 367). Downs (2005) finds the smart growth paradigm was discussed more than it was actually carried out in practice. Youngstown’s experience with smart shrinkage indicates the same might also be true for this opposing land use paradigm, a compelling idea that spurred short-term political enthusiasm and popular appeal but faced legal, economic, and political obstacles in the longer term when time came to translate the ideal into legally enforceable zoning. Youngstown’s experience is a cautionary tale showing that many elements of the smart shrinkage paradigm may parallel smart growth in being easy to say but harder to realize.

Youngstown is not alone in struggling to realize land use planning objectives through conformance of a comprehensive plan with subsequent measures. Other scholars also find land use planning implementation to only partially conform, at best, with plan objectives. Examining hazard mitigation plans in the United States, Lyles, Berke, and Smith (2016) find a range of conformance-based implementation success in a survey of more than 100 plans. They describe implementation success as “moderate” (Lyles et al., 2016, p. 381) but also note that progress in implementation did vary by state and type of policy. Alfasi, Almager, and Benenson (2012), examining the actual impact of an Israeli land use plan on the built environment, find “fundamental gaps between … the district plan and actual development” (p. 862). And in China, Zhong, Mitchell, and Huang (2014) find that China’s National General Land Use Plan not only “conformed and performed poorly” but “failed to achieve its goals” (p. 93): this in a nation where the government holds title to all land and where land use control is centralized, at least formally, at the national level. This diverse assortment of land use implementation struggles, however, need not necessarily hold predictive value for Youngstown because either the content or scale of the prior plans (hazard mitigation, regional or national land use) was quite different from Youngstown’s plan.

Smart shrinkage, though still comparatively untested and only partially defined, nevertheless constitutes planners’ valiant conceptual attempts to apply the tools and practices available to them to the thorny and seemingly unsolved problem of the shrinking city. Youngstown’s plan was a serious and seriously interpreted attempt to use the methods of comprehensive planning to address shrinkage. Our study finding that the plan lacked implementation can be interpreted in at least two ways. Pessimistically, one might interpret the study findings as an indication that smart shrinkage is a chimera: Planning for a city to accommodate and rationally confront population loss and economic decline is difficult or impossible. More optimistically, one might view the study findings as less a warning than a guide for future smart shrinkage advocates in understanding the constraints of comprehensive planning and therefore in adopting multiple means of realizing smart shrinkage goals through alternative avenues of planning than the nonstatutory, hortatory comprehensive plan. Neighborhood planning, for instance, is smaller scale and less dependent upon citywide consensus, instead leveraging the capacity and engagement of citizens and nongovernmental bodies. Might neighborhood planning be a more strategic and practicable means of realizing smart shrinkage than the citywide comprehensive plan? It is certainly possible, and Youngstown’s widespread use of neighborhood planning, mentioned previously, makes this shrinking city worthy of additional investigation. Future research might examine the relationship between neighborhood planning and the realization of smart shrinkage. Table 5 summarizes our study’s conclusions regarding smart shrinkage implementation.

Youngstown’s comprehensive plan experience is also worthy of reflection, quite apart from the plan’s intended accomplishment of smart shrinkage. Youngstown 2010, like many comprehensive plans, had substantial political support and at least superficially broad citizen outreach and buy-in at its time of issue. Yet the plan’s implementation, at least through legally enforceable means, was quite limited. Whether this should be taken as a sobering finding for advocates of comprehensive planning may depend upon the aims of such advocates. Few such advocates would claim that the comprehensive plan’s framers were not interested in implementation; the effort and expense of generating the plan would hardly seem worthwhile should that be the case. But by the same
token, the comprehensive plan’s specificity and sincerity seem wasted in the face of the plan’s limited implementation. The plan does not seem to have been publicized or understood as a strategic plan—a plan that is comparatively unspecific in its goals but aspirational and inspirational in its broad strokes—but perhaps such a strategic plan might have served Youngstown’s needs better, rather than a highly specific land use plan whose specificities proved to be pragmatically unrealizable.

Today (2019), 15 years after the comprehensive plan was issued, Youngstown remains a city with large numbers of vacant parcels, an anemic economy, and serious social challenges. The need for urban planning to engage the city’s challenges remains. More broadly, the nonstatutory comprehensive plan remains a widely used instrument for garnering community and political support for changes to urban land use patterns across the United States. Our study’s findings should prove instructive for planners interested in smart shrinkage as a planning tool and for communities considering nonstatutory comprehensive plans of their own. Both constituencies should pay careful attention to the challenges Youngstown experienced in its rezoning when property owners cautious of takings and a fiscally straitened, politically dynamic and decentralized city found a conceptually ambitious plan mostly unworkable. In Youngstown, the combined persistence of growth-oriented ideology, entrenched property rights, resilient historic land use arrangements, financial limitations, and political shifts severely limited the implementation of the city’s ambitious, nonstatutory, smart shrinkage–oriented comprehensive plan.

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