The Urban Growth Boundary: Analysis of a Component of Portland’s 2040 Growth Concept

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ABSTRACT

“As more and more communities seek new approaches to both defining the challenges of late 20th century urban development and addressing them, attention is turning with a vengeance to smart growth and regional growth management” (Seltzer, 2000:2). Portland, Oregon has become well-known for its growth management initiatives, which center around enforcement of an Urban Growth Boundary (UGB). Much can be learned from the description and evaluation of Portland’s 2040 Growth Concept and UGB. This paper attempts to do this, while suggesting challenges that remain for Portland planners.
INTRODUCTION

In the advent of increasing recognition of the effects that consumptive land uses have on the quality of our physical, economic, and social environments, planners and politicians look to concepts of growth management to control sprawl and organize space. The concept of growth management is not new. There exists a range of opinion regarding what may be the most effective method of directing both the location of future development, as well as the best use for developable property, in terms of its function and physical form. While recognizing that what constitutes an effective growth management strategy will vary, depending on a city or region’s development history, geography, demographic and industry profile, much can be learned from the examination of strategies in operation, particularly within the North American context.

The motivation for this paper was developed from the participation in a course trip to Seattle, Washington, and Portland, Oregon, which was designed to provide a first hand account of issues and strategies associated with growth management in these cities. The purpose of this paper is to gain a more comprehensive understanding of growth management strategies in the Portland region. Specifically, the concept of Portland’s Urban Growth Boundary (UGB) is explored, as a central component of the 2040 Growth Concept, the region’s 50-year plan for managing growth. This paper commences with discussion of the proliferation of regional planning and growth management, followed by a description of planning in Portland, and details of its Urban Growth Boundary – how it evolved, how it functions, and what it looks like. Given this knowledge, the final part of the paper will focus on the perceived success of Portland strategies, and what challenges remain. This will include mention of critiques of the Urban Growth Boundary and 2040 Growth Concept, and suggestions for why many authors find its proclaimed characteristics and outcomes, misleading. In short, this paper strives to determine what can be learned from growth management in the Portland context.
Regional Planning

Regional planning is rooted in 19th Century Europe and North America, emerging from concern that the demands of capitalist urban society threatened the integrity of the natural environment (Hodge, 1998). Due to the complexity and interrelations of physical, social and economic activities, planning problems are rarely confined, justifying a consideration of defining issues and developing solutions at a large scale. As cities began to grow, many people were drawn to settlements outside of the urban core, which offered less congestion, and physical amenities not offered in urban centers. Hence, planning problems began to have effects well beyond their source due to an increased use of the automobile, and the demand for supporting infrastructure and services to suburban locations (Hodge, 1998).

Wheeler (2002) notes that there has been a resurgence of interest in regional planning in North America since the early 1990s. He states that “recent movements for New Urbanism, smart growth, livable communities, sustainable development, and improved equity in metropolitan areas, all have strong implications for regional planning and design” (Wheeler, 2002:1). Problems of traffic congestion, pollution, power and water supply, waste disposal, affordable housing and historic and natural conservation are becoming increasingly prevalent as population increases place stress on elements of the built and natural environment. Low-density development has transformed America into ‘suburban nation’, home to more than half of the population of the US (Bromley & Daniels, 2001). Wheeler (2002) addresses the struggle to define the current nature of regional planning, by suggesting the following characteristics of ‘new regionalism’, which has developed since the late 1990s:

- Focuses on specific territories and spatial planning;
- Addresses problems associated with the growth and fragmentation of metropolitan regions;
- Is a more holistic approach that considers the integration of transportation, and land use, as well as environmental, social and equity goals;
often adopts a normative stance.

**Growth Management**

It is fair to suggest that growth management strategies develop along side regional planning, and that the motivations for both are similar. Growth management assumes that growth is inevitable, and perhaps even desirable\(^1\). Growth management involves understanding the growth process, and developing ways to effectively deal with it. It implies programs designed to influence the rate, type, location, and cost of growth, and focuses on measures designed to control as well as stimulate growth. Growth management is primarily a game of rates – forecasting rates of growth, and allocating that growth to specific locations (Seltzer, 2000).

Growth management policy in the United States in the late 1960s and early 1970s emerged both in reaction to concern for quality of life, as population and development increased, and in response to threats to the integrity of environmental areas (Carruthers, 2002). Growth management efforts in the 1980s focused on balancing competing land use objectives, and integrating local and regional concerns.

Carruthers (2002) states that while there is an increasing acceptance of the need for growth management programs, little evidence of their success or progress is available. As a consequence of this lack of research, “there is little evidence that growth management fulfils its intended objectives” (Carruthers, 2002:391), leaving uncertainty about the merits of such comprehensive plans. Given this, discussion will now turn to planning and growth management strategies in Portland, and an attempt to begin to examine the success of efforts in this region, which has become known as a mecca for growth management.

**PLANNING IN PORTLAND**

Portland provides the reigning model for regional planning and growth management in the United States. This is no doubt due to the city’s reputation as a high quality, green, livable place. Such descriptions can be found dating back to the early 1900s, with urbanist Lewis Mumford stating, upon study of the area: “I have seen a lot of scenery in my life, but I have seen nothing so tempting as a home for man than this Oregon country…You have the basis here for civilization on highest scale” (as quoted in Stephenson, 1999). There is a long history of environmental conservation in the region, which did not seem to lose momentum, and is responsible for the ongoing perpetuation of environmental conscience within the planning system. Abbott (1994) attributes this at least in part due to a moralistic political culture in the area that places value on public good. Indeed, it seems that Portland residents are more conscious of planning efforts, and accept that land uses should be governed for the common good. This includes general support for growth management policies, and specifically, the 2040 Growth Concept. A dedication to public involvement as part of Portland’s policy development process is likely the primary reason for this.

Regional planning in Portland is not a recent development, with the first discussion of its merits as early as 1937 (Stephenson, 1999). Research and public address from Mumford in the early 1940s encouraged a regional perspective on planning and resulted in the circulation of his work, Regional Planning in the Northwest. While there were no immediate results from Mumford’s visit, the importance of planning at a regional scale resonated.

THE URBAN GROWTH BOUNDARY

Following a transition to planning directed by civil engineering and public works in the decade after 1945 (Stephenson, 1999), a population explosion enticed a consideration for planning at the larger, statewide scale, rather than the local-level planning that was in operation. Abbott (1983) recalls that “urban pollution, the loss of rich farmland to leap-frog subdivisions, and the fear that the state’s renowned ‘livability’ was in decline”, fueled a planning revolution. This led to the passing of a law which required local
governments to develop a comprehensive plan that met statewide goals. One such goal was a requirement for the designation of territorial limits for each city.

In the Portland metropolitan area (Metro), this resulted in the creation of an Urban Growth Boundary (UGB), which encompassed 24 cities and the urban portions of three counties. Interestingly, Stephenson (1999) notes that the implementation of the UGB was met with little opposition, as it was enforced during a recession, when growth and development were slow (see Figure 1). In 1978, a charter was passed that gave Metro jurisdiction over regional planning, the first elected regional council in the United States. The UGB (then at about 230,000 acres) was officially accepted by the state in 1979. Historically, the intention of the UGB was to prevent encroachment of development onto surrounding farmland and forests. The purpose of the UGB was not to influence the type of development occurring within the boundary. As a result, in its early years, the UGB really only functioned to contain sprawling development – the boundary contained enough developable land to accommodate the demand for low-density development.

Simply put, the UGB marks the separation of urban and rural land. State law dictates that the boundary must contain enough land to accommodate growth over a 20 year period. The extent of the boundary is review every 5 to 7 years, to ensure the adequate supply of land is available. Only 3000 acres have been added to the UGB since its inception.

In the late 1980s and early 1990s, rapid growth in population, and housing and land prices put Portland’s land system under political and economic stress. Figure 1 represents past population trends for the Portland metropolitan region, noting that although growth rates have fluctuated, total population has remained on a steady increase.
Analysis of trends revealed that if the existing pattern of development were to continue, more than 120 000 acres of land would be required to absorb growth by the year 2040 (Metro, 2000). Recognizing the significant impact this would have on surrounding cities, rural economies, and the environment, Metro launched a study to evaluate how various growth concepts would impact the shape of the city.

**Figure 2: Growth Management Concepts**

*Concept A: Growing Out*  
*Concept B: Growing Up*  
*Concept C: Neighbouring Cities*

*Source: Metro, 2000*
The graphics in Figure 2 represent three concepts that Metro evaluated in deciding on a general growth strategy. Concept A would involve significant expansion of the UGB and new residential development at the urban edge, with 51,000 acres added to the UGB. Concept B allows for no expansion of the UGB, thereby accommodating all new growth within the existing 234,000 acres of the UGB. Concept C involved moderate UGB expansion, focusing growth in urban centers, corridors and neighbouring cities (Metro, 2000).

It was recognized that the UGB alone could not influence the form of development within the boundary, and that policies would be required that encouraged compact forms of development. The period of 1992 to 1994 was spent evaluating concepts that “presented different philosophies about how the region should actively manage growth” (Metro, 2000:4). This study eventually led to the adoption of the 2040 Growth Concept in 1995.

**THE 2040 GROWTH CONCEPT**

![Figure 3: 2040 Recommended Growth Concept Source: Metro, 2000](image)

Chosen as a combination of 2 of the 3 growth concept alternatives, Metro’s 2040 Growth Concept called for the following:
- Putting more than 40 percent of all newcomers into "town centers" and other densified, mixed-use neighborhoods;
- Developing 20,000 acres of vacant land inside the growth boundary into relatively dense residential areas with average new house lots of 6,200 square feet—down from the current average of 8,000 square feet;
- Encouraging developers to redevelop close to 9,000 acres of existing neighborhoods and to "infill" vacant lots and take advantage of higher-density zoning;
- Increasing the share of multi-family housing from under 30 to 35 percent; and
- Adding up to 14,500 acres to the urban-growth boundary, of which about 10,000 would be residential or mixed use. ([www.ti.org](http://www.ti.org))

The above objectives, however, would not be enough to accommodate the 1.1 million newcomers expected to move to the region by 2040. Hence the concept assumed that 42,000 of these people would move into satellite cities.

Figure 4 is a map of components of the 2040 Growth Concept. The UGB is represented by the dashed black line. The separation of urban development lands and rural reserves is clear. The map displays planned and existing transit line and transportation system, which, together with land-use policy, form the basis of the concept. The colored circles on the map represent a hierarchy of centers, including the central city, regional centers, town centers, and station communities, and industrial areas.
Figure 4: The 2040 Growth Concept
Source: Metro, 2000
The actual size of the UGB is determined by estimating the capacity for jobs and housing within the UGB, and anticipation of the demand for additional jobs and housing, given projected population growth (Metro, 2002). The decision of which lands will be included in any expansion of the UGB are determined according to priority set out by state law (Metro, 2002). Higher priority lands include those designated as urban reserves, and ‘exception land’, which is land not designated as farm or forest. Lower priority lands can be non-resource lands that allow residential development, and land designated as farm or forest (last priority for development). The process of expansion of the UGB has been questioned for its effectiveness, as will be discussed later.

The basic philosophy of the 2040 Growth Concept is “to preserve our access to nature, and build better communities for the people who live here today and who will live here in the future” (Metro, 1997:16). Of note is that growth management in Portland is guided by the integration of several plans, including the Regional Framework Plan, Regional Transportation Plan, and The Urban Growth Management Functional Plan (none of which are discussed in this paper).

Currently, Metro is in the process of approving an expansion to the UGB of nearly 19 000 acres, which would provide about 39 000 homes, and 2600 additional jobs for the region over the next 20 years.

REMAINING CHALLENGES

City planning never occurs under static conditions. Any good policy or strategy will include some form of monitoring and evaluation, to gauge how it has accommodated changes in context. In general, there is limited research dedicated to the measure of the success of particular growth management strategies. While strategies such as Portland’s 2040 Growth Concept include provision for the evaluation of land remaining available for development, there is no systematic measure of how strategies have affected outcomes such as urban form, traffic flow, or quality of life – all things the concept claims to address. How then, can strategies remain flexible to changes in
community values, leadership, economic and population dynamics? It is important to note challenges that remain for Portland planners and politicians, issues that are not likely to disappear. The following identifies a range of challenges that Metro will face in striving for continued success of its growth management initiatives:

Evolution of community values and population dynamics. A major factor in the success of growth management strategies in Portland is the significant support that the community has for policies affecting land use and consumption. This culture for responsible development is essential in a democratic environment. Population dynamics, however, could threaten this cohesion. Growth in Oregon has historically and to this day been result of in-migration, rather than natural increase (see Figure 5). Because new residents are not directly tied to the land for economic reasons, as in the past, the split between urban and rural interests is growing.

**Figure 5: Migration Trends of the Portland-Vancouver Metropolitan Area**
(Source: CPRC Portland State University)

![Migration Trends of the Portland-Vancouver Metropolitan Area](image)

Regulation alone is not sufficient. Related to the above, this refers to the challenge of promoting attitudes and habit which support growth management efforts. Often mentioned is the fact that transportation system goals cannot be met by physical development of the system alone. Community members must actually use the system and alter trip behaviour to reflect the objectives of the 2040 Growth concept.
Leadership matters. Portland has a history of “key leaders in critical positions, people able to accurately name the problem, see the connections between interests, and inspire us to be better than we are” (Seltzer, 2000:4). With the increasing complexity of urban growth issues, and increased accessibility to information, no single leader can oversee every issue. There is no longer one lead issue to bring people together. Seltzer highlights the need for partnerships and collaboration.

Economics are unpredictable. Portland planners will have to anticipate changes relating to economic fluctuations. High tech employment has become dominant, and there is an increasing number of small businesses, many of which are home-based (Seltzer, 1995). Such dynamics will continue to affect migration and demographics in the area as well as having potential affects on transportation habits and demands on services.

UGB Expansion is contentious. There will never be complete agreement on this issue. While there is widespread support for the use of the UGB as a tool for growth management, there are people of the opinion that expanding the boundary is contrary to the values underlying the growth concept itself. It is difficult to predict what will influence future opinion on this matter, and Portland planners should anticipate the persistence of this contention, as migration increases, and as the city’s urban form evolves (i.e. people’s views may change as the space around them becomes more congested).

CRITIQUES AND LESSONS LEARNED

Due to the large volume of discussion on Portland growth management strategies it would be difficult to compile the entire spectrum of critiques on the topic. And as such critiques are developed from such a great range of opinion, it is difficult to filter out accusations that are misleading and perhaps unfair. In general, however, the following discussion represents reoccurring notions in the literature, and general lessons that can be learned from the Portland experience.
Public Involvement
Public Involvement is double-sided. The process of growth management planning in Portland is known for its high-level of public consultation during plan formation. There appears to ongoing communication between planners and the public on the status of issues surrounding the UGB, and the status of growth management initiatives in general. While this rhetoric offers legitimacy to planners, and implies ownership of the results, one might suggest that there is a door open to controversy and conflict. A forum exists for groups that may increasingly question the legitimacy and success of the 2040 Growth Concept.

Need for research
Given the interdependence of urban systems, it is difficult, if not impossible to determine the benefits and costs of any particular growth management tool. Although numerous studies have been developed to determine the cost imposed by the urban growth boundary, none has been able to demonstrate that the urban growth boundary alone is the reason for negative outcomes such as the rising cost of housing (Seltzer, 2000).

Figure 6: History of Median Housing Price

Source: Metro, 2002

Housing prices on the rise
One of the most frequently cited discussions of Portland’s UGB and 2040 Growth Concept is the effect they have on the cost of housing. Figure 6 clearly illustrates the trend of rising housing prices in Portland. Figure 7 reveals that the size of both lot and
structure size has decreased over time. Hence, housing in Portland is becoming increasingly expensive per square foot, and research has shown that in 2001 the most expensive dwellings were found in the central city. Opinions are mixed, and there does not seem to be consensus on whether the UGB alone threatens the availability of affordable housing. The basic premise behind this hypothesis is that by restricting the amount of land available for development, the cost of existing land and housing increases – as demand increases, supply remains roughly the same. Others, however, believe that market demand, not land constraints, is the primary determinant of housing prices (Brookings Institution, 2002).

**Figure 7: Trend in Lot and Structure Size**

*Source: Metro, 2002*

*Note: bars represent lot size for, and lines represent structures (both for various counties)*

Mildner (1998) notes that for the period of 1990-1995, Portland had both one of the fastest growth rates, as well as one of the highest rates of housing price appreciation. He explains, however, that this provides only circumstantial evidence of whether this is the result of the UGB. Most metropolitan areas “have some level of local zoning and building code regulation that, if stringent enough, could have a significant effect on the inelasticity of housing supply, which in turn causes rises in housing demand to lead to appreciation rather than new development” (Mildner, 1998). Furthermore, employment growth, particularly in the high tech industry, increases
incomes, and migration. The trend of rising income is depicted in Figure 8, revealing that income in the Portland region is both higher than the country, and rising at a slightly faster rate. The effect of this is unclear, but it has been suggested that due to the UGB, the increased demand results in increased housing prices, rather than more houses being built. As the supply of available land decreases, the quality of the vacant land becomes less attractive, resulting in increased demand for inner-city housing. This process of gentrification is typical in metropolitan areas, but is perhaps perpetuated with the UGB.

**Figure 8: Per Capita Income (1997 Dollars)**

*Source: Metro, 2000*

Furthermore, likely in reaction to rising housing costs in Portland, there has been rapid growth in exurban communities not included in the UGB. Should this trend persist, the UGB could be accused of creating even greater urban sprawl than could exist without it. Mildner (1998) comments that “while the Portland region seems to have avoided the specter most feared, Los Angeles-type sprawl, the region appears headed instead for the San Francisco model of inner city gentrification and suburban exclusivity”. Here, one must recall that the UGB is but one component of the 2040 Growth Concept, and that other components strive to create quality urban environments, and improve on existing ones.
**UGB is part of a whole**

This relates to another lesson learned from Portland - an Urban Growth Boundary cannot, on its own, result in effective growth management. While an urban growth management strategy can benefit from a UGB as a tool, growth management requires attention at other scales. This is evident in Portland’s 2040 Growth Concept and Framework Plan, with strategies for a range of scales, such as planning transportation at a regional scale, to urban design for mixed-use communities at the neighbourhood scale.

**Underlying flaws of the 2040 Growth Concept**

Literature review also reveals the belief that “the basic tools used in Metro’s 2040 plan – light rail, high-density zoning, and New-Urban design—are fundamentally flawed”, and will produce outcomes opposite to those intended\(^2\). Such accusations include that:

- Light rail does little to reduce congestion, and is simply an expensive attraction for high-density development. Also, the selected concept may have lower congestion than others, but this is because it includes more lane kilometers of road.
- Metro’s claim that high-density development will reduce congestion and pollution, and slow the rate of land consumption. Accommodating more people into an area may decrease the share of trips by car, but is offset by the increase of trips from a larger number of people. It is also known that pollution is worse in congested locations.
- New Urbanist transit-oriented and pedestrian-friendly developments are risky investments, and reduce per-capita auto usage by less than 1 percent. It is also noted that New Urban design attempts to increase livability for the 5-10 percent of the population that walk, bike or use transit, while reducing livability for the 90-95 percent who drive.

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\(^2\) [www.ti.org](http://www.ti.org)
One can see by the above comments that perceptions of whether Portland’s UGB and 2040 Growth Concept are successful, is highly subjective, depending on the values and preferences of the person making the claim. Others may believe that although high-density and New Urbanist-type developments suit a portion of the populations’ lifestyle, they are more responsible, less consumptive, and achieve conservation of natural areas and efficient use of land. Carson\textsuperscript{3} states that in reality growth management serves only to slow inevitable growth, and that the concept of New Urbanism simply makes increased density more enjoyable.

**CONCLUSIONS**

The significant attention that Portland receives which focuses on its growth management strategies highlights an ongoing debate, which questions the legitimacy of employing collective action to address the failure of past attempts to produce livable and sustainable cities. What Portland has done is a result of what and who they are, and a specific history of policy development, public involvement and adherence to a continuous system of values. There is no software available to replicate the efforts and outcomes of Portland, and many note that the UGB is not the only effective tool for growth management.

Any region, like Portland must continue to focus on shared values, and remain flexible to changes in social, physical and economic conditions, as growth, like decline, results in change. The struggle to understand the impact of choices related to growth management is likely to persist. Planners and politicians must encourage systematic monitoring and evaluation of growth management initiative.

\textsuperscript{3}from *Common Sense in*  [www.carsonessays.homestead.com](http://www.carsonessays.homestead.com)
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