

# Assessing urban growth management

## The case of Portland, Oregon, the USA's largest urban growth boundary

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**Many states in the USA attempt to manage urban growth so that development is directed to urban areas equipped to accommodate development, and rural lands are preserved for resource and other non-urban uses. The state of Oregon is entering its third decade of what many commentators describe as the nation's most aggressive urban growth management programme administered statewide. This article reports a recent evaluation of the effectiveness of the state urban growth management policies as they are implemented by the metropolitan Portland area. The metropolitan Portland area contains the largest population, employment and land base within a single urban growth boundary in the USA. Using primary data collection and analysis, the effectiveness of the urban growth management and resource land preservation effort is assessed. Nearly all regional development has been directed to the urban growth boundary and away from resource lands. Many problems with administration are found, however. Policy implications are suggested.**

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Urban growth management in the USA is applied sporadically. Unlike the UK, which applies urban growth management and rural land preservation policies nationwide, such policies are applied in only a few states. The state with the longest continuing history of statewide growth management and rural land preservation is Oregon.<sup>1</sup> It is a state of about 3 million residents in an area roughly equivalent in size to the UK or the former Federal Republic of Germany, which each has more than 50 million residents. Despite its small population, Oregon is the recognized leader in growth management in the USA.<sup>2</sup> Oregon uses urban growth management to:

- direct the regional demand for urban development into areas contained by urban growth boundaries (UGBs) and away from resource lands;
- restrict exurban (beyond UGB) development so that it is compatible with resource activities; and
- restrict resource lands to resource activities.<sup>3</sup>

Many states are now implementing features of Oregon's growth management and rural preservation policies, including Florida, Georgia, Maine, New Jersey, Rhode Island and Washington. Much can be learned by these and other states about the effectiveness of growth management policies applied in Oregon.

Oregon is entering its third decade of growth management and resource land preservation. Yet, until recently, there has been no systematic assessment of its effectiveness. Are urban local governments effective in directing growth to UGBs and away from resource lands? Is the administration of such policies fulfilling statewide aims, or undermining them? This article assesses the effectiveness of the growth management and resource lands preservation policy of metropolitan Portland, Oregon. It is the first study to assess urban development patterns associated with statewide growth management policy in a

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the Oregon State Legislative Assembly and the Oregon Land Conservation and Development Commission. Opinions expressed herein are those of the authors and not necessarily those of the sponsors.

<sup>1</sup>J.M. DeGrove, *The New Frontier for Land Policy*, Lincoln Institute of Land Policy, Cambridge, MA, USA, 1992.

<sup>2</sup>D. Gail, 'Eight state-sponsored growth management programs', *Journal of the American Planning Association*, Vol 58, No 4, pp 425-439.

<sup>3</sup>G.J. Knaap and A.C. Nelson, *The Regulated Landscape*, Lincoln Institute of Land Policy, Cambridge, MA, USA, 1992.

<sup>4</sup>M. Rohse, *Land-Use Planning in Oregon*, Oregon State University Press, Corvallis, OR, USA, 1987.

<sup>5</sup>Mid-Willamette Valley Council of Governments, *An Urban Growth Policy for the Salem, Oregon, Area*, Mid-Willamette Valley Council of Governments, Salem, OR, USA, 1974.

<sup>6</sup>A.C. Nelson, *Urban Growth Boundaries: Oregon Land Use Planning: A Twenty Year Assessment*, Oregon State University Press, Corvallis, OR, USA, 1993.

<sup>7</sup>J.H. Leonard, *Managing Oregon's Growth*, Conservation Foundation, Washington, DC, USA, 1983.

<sup>8</sup>Land Conservation and Development Commission, *Statewide Planning Goals and Guidelines*, Department of Land Conservation and Development, Salem, OR, USA, 1993. It is important to distinguish between Oregon's *growth management* policies and *growth control* policies employed in other parts of the USA. *Growth control* means imposing density constraints, development moratoria, population caps and the like. R. Scott, ed, *Management and Control of Urban Growth*, three volumes, Urban Land Institute, Washington, DC, USA, 1975. *Growth management* means accommodating the regional demand for urban development of all types, but within an overall planning framework. In effect, UGBs as a growth management tool do not limit the pace of growth but manage growth's location. See Knaap and Nelson, *op cit*, Ref 3.

<sup>9</sup>To varying degrees, local governments use tax incentives and disincentives, fee and less than fee acquisition, zoning, and urban service programming to guide urban development to and within UGBs. A.C. Nelson, 'Preserving farmland in the face of urbanization', *Journal of the American Planning Association*, Vol 58, No 4, pp 467-488.

<sup>10</sup>ECO Northwest, *Urban Growth Management Report*, Department of Land Conservation and Development, Salem, OR, USA, 1993.

<sup>11</sup>A.C. Nelson, 'Managing urban growth in Oregon', *Real Estate Finance*, Vol 8, No 4, pp 11-22.

major metropolitan area. The article begins with a summary of Oregon's urban growth management and resource land preservation policy and then proceeds with an assessment and policy implications.

## Oregon urban growth management policy

An urban growth boundary is a line drawn around a metropolitan area that delineates where urban development may take place (inside the UGB) and where it may not (outside the UGB).<sup>4</sup> The concept originated out of the efforts to manage growth and preserve prime farmlands in the Salem metropolitan area during the early 1970s,<sup>5</sup> which led to among the earliest UGBs in the USA.<sup>6</sup>

Prior to 1973, urban development proceeded in Oregon on a piecemeal basis without coordination among local governments or their planning, public works and education functions.<sup>7</sup> The Oregon Land Use Act of 1973 changed that. Now, every local government must plan for and contain urban development in a manner acceptable to the seven-member, gubernatorially appointed, Land Conservation and Development Commission (LCDC).

Using the Salem UGB model, the LCDC adopted an urban planning goal which states, in part: 'To provide for an orderly and efficient transition from rural to urban land use . . . Urban Growth Boundaries shall be established to identify and separate urbanizable land from rural land'.<sup>8</sup> By restricting urban development to a well-defined, contiguous area, it is thought growth can be accommodated without permitting urban sprawl.<sup>9</sup> UGBs were drawn consistent with the following criteria:

- (1) demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
- (2) demonstrated need for housing, employment opportunities and livability;
- (3) assuring the orderly and economic provision for public facilities and services;
- (4) maximizing efficiency for land uses within and on the fringe of the existing urban area;
- (5) consideration of environmental, energy, economic and social consequences;
- (6) retention of prime agricultural soils; and
- (7) compatibility of the proposed urban uses with nearby agricultural activities.<sup>10</sup>

Land outside UGBs is restricted to farming, forestry and other resource uses. However, land outside UGBs that is unsuitable for resource uses because of terrain, soils and historical development patterns are given 'exception' status and allowed low-density development.<sup>11</sup>

During the period 1975-86, local plans were reviewed by the administrative arm of the LCDC, the Department of Land Conservation and Development (DLCD), for technical consistency with these and other statewide planning requirements. Plans that met statewide requirements were officially 'acknowledged' by the LCDC.

Although simple in concept, the construction of UGBs proved difficult in practice. Part of the difficulty stems from the uncertainty concerning the rate of urban development. With the rate of urban development uncertain, determining exactly how much land to include inside a UGB is a difficult problem. Too little urban land could cause

land price inflation; too much would not prevent urban sprawl. Further, the process of expanding, amending or renewing UGBs has yet to be determined.<sup>12</sup> The result was considerable controversy concerning what should be done with land immediately outside UGBs that was previously subdivided or under pressure for low-density urban development. That is one reason why such land was given 'exception' status and restricted to low-density urban (which we call 'exurban') uses subject to site planning constraints.

The construction of UGBs proved also to be a difficult political process. Although the construction of UGBs is intended to be an intergovernmental effort, cities and county governments often competed for urban land. Conflicts often ensued between local governments – which wanted larger UGBs and fewer rural land restrictions – and the LCDC – which wanted small UGBs and considerable rural land restrictions. Local governments frequently sought to include more land inside UGBs than DLCD believed to be justified based on demographic and economic trends. In most cases, LCDC forced local governments to reduce the amount of land contained within UGBs. Although it is difficult to generalize the relationship between local governments and the LCDC, it appears that LCDC participation in the land use system has resulted in less land available for urban development than would have occurred under a purely local system of land use control.<sup>13</sup>

Until plans were acknowledged, LCDC had certain powers over local development decisions. Once acknowledged, full implementation powers were transferred to local governments. Ultimately, the effectiveness of the state's planning policies depends on the extent to which local planning agencies administer local plans. In particular, do Oregon's urban growth management policies work when applied to a complex metropolitan area?

### **Metropolitan Portland, Oregon**

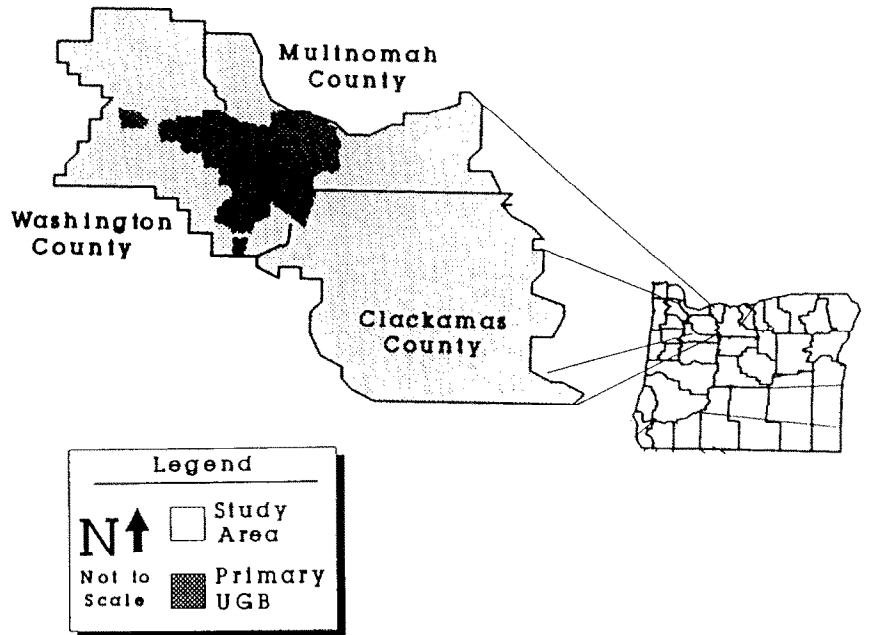
Metropolitan Portland is the state's large metropolitan area. It is composed of parts of three counties and 24 cities. Metropolitan Portland cover 3026 square miles and is home to 1.1 million residents. The area's overall population density is about 364 persons per square mile. By the year 2000, the metropolitan area's population will exceed 1.3 million.

The area's industrial base is a highly diversified mixture of manufacturing, business and personal services, and trade. The manufacturing sector produces a wide range of products including computers, instruments, transportation equipment, paper, and electrical and non-electrical equipment. Metropolitan Portland exports medical, financial and business services to national markets and throughout the Pacific Rim. The metropolitan area has had an annual employment growth rate of over 4% since 1985 and annual population growth of 1.3%. The suburban Washington and Clackamas counties are growing most rapidly.

The UGB was originally proposed in 1978 and included 25% more land than expected to be developed by the year 2000. The LCDC approved the metropolitan Portland UGB in 1981, after insisting that its size be reduced to include 15.8% more land than expected to be developed by the year 2000. Figure 1 shows the general location and approximate boundaries of the case-study areas. Figure 2 shows the location of the UGB within the counties and in relation to city limits.

<sup>12</sup>Knaap and Nelson, *op cit*, Ref 3.

<sup>13</sup>*Ibid.*



**Figure 1.** General location and approximate boundaries of case-study areas.

### Research design

In 1989, the Oregon Legislative Assembly directed the DLCDC to assess the effectiveness of growth management policies in the metropolitan area, and determine ways in which those policies could be improved. The period of analysis was restricted to 1985 through 1989. The study was completed in 1992. Most data for the analysis came from the Metropolitan Service District (Metro). Such data included residential and commercial building permits, land division activity, and residential densities allowed within land use categories.

Using Metro data, four analysis areas were defined based on (1) the density of development in 1985, measured as population plus employment per acre, and (2) location with respect to the UGB. Metro reports population and employment data by underlying zone (UZ). The 1806 UZs in the three-county study area are disaggregated from census tracts. The UZ are organized into:

- an urban area, which consists of UZs with more than 3000 residents per square mile in 1985;<sup>14</sup>
- an urbanizable area, which consists of the remaining UZs inside the UGB;
- an urban fringe area, which is composed of UZs outside and within one mile of the UGB; and
- the penturban area, which is composed of all remaining UZs.

We combine the urban fringe and the penturban area into an 'exurban' area for selective analytic purposes. In addition to assessing general regional trends, we offer detailed analysis of building and land division activity in Washington County. It is the region's fastest-growing county and has urbanizable, urban fringe, exurban and rural areas.

<sup>14</sup>If growth management is to be effective, it must result in infill and redevelopment of already developed areas.

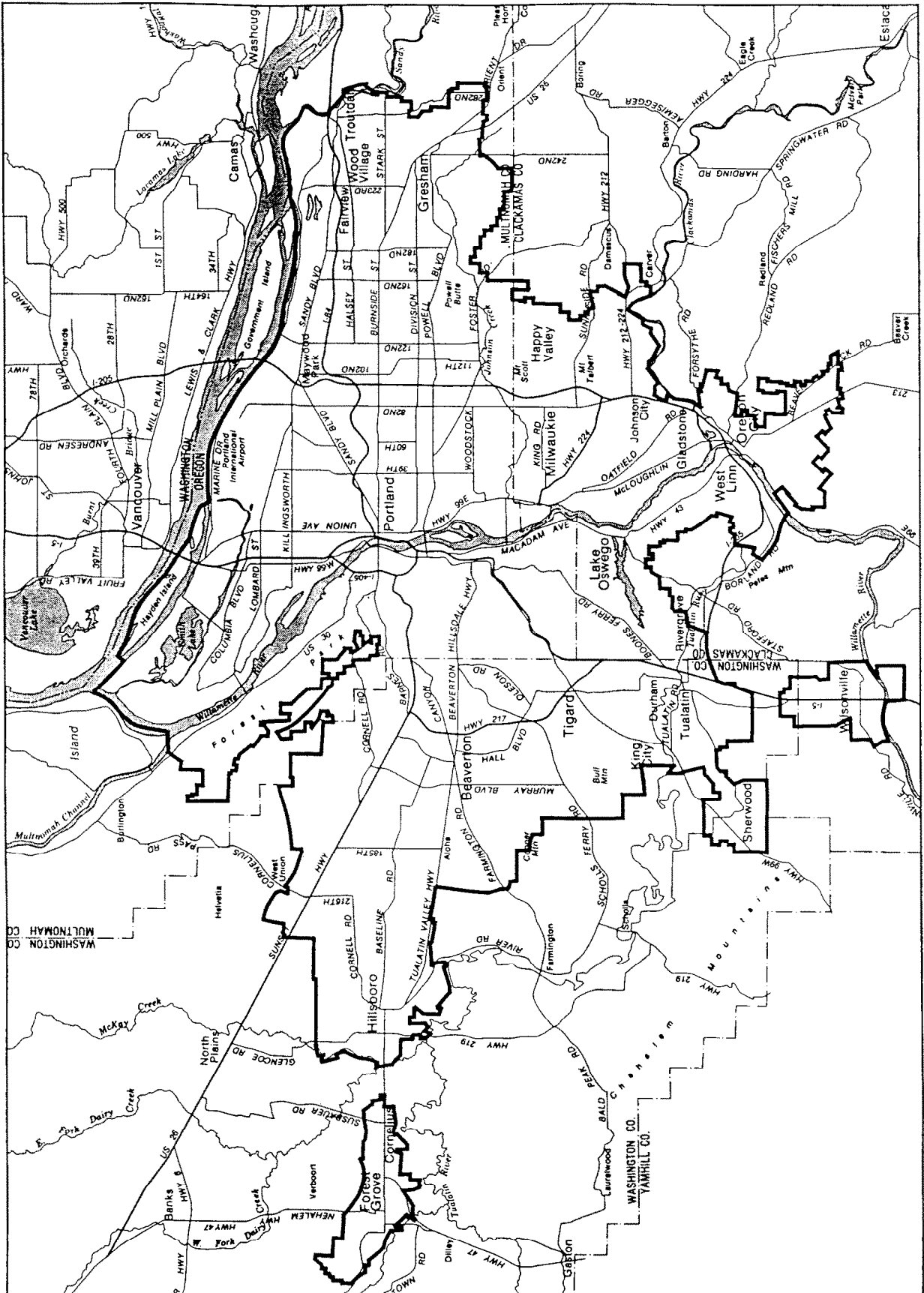


Figure 2. Location of urban growth boundary within the counties of Oregon, USA, and in relation to the city limits of Portland.

Table 1. Building and land divisions, 1985-89.

Analysis area	Residential building permits					
	Single-family units		Multiple-family units		Subdivisions	
	No of units	%	No of units	%	No of lots	%
<i>Inside UGBs</i>	18 793	90.7	22 318	99.5	14 272	98.8
Inside Portland UGB	18 628	89.9	22 251	99.2	14 079	97.5
Urban	11 127	53.7	14 510	64.7	9 707	67.4
Urbanizable	7 501	36.2	7 741	34.5	4 372	30.1
Inside other UGBs	165	0.8	67	0.3	193	1.3
<i>Outside UGBs</i>	1 928	9.3	116	0.5	175	1.2
Portland urban fringe	713	3.4	0	0.0	151	1.1
Rest of county	1 215	5.9	116	0.5	24	0.1
<i>Total</i>	20 721	100.0	22 434	100.0	14 447	100.0

Source: Metropolitan Service District.

## Findings

Data on residential building permits, residential land divisions, and density of residential development by land use category are summarized in Tables 1 and 2. General findings from these tables and other analysis include the following.

### *In exurban areas*

- About 5% of the 43 155 single and multiple family dwelling units built in metropolitan Portland were located outside the UGB. Less than 2% of residential development occurred in the urban fringe.
- About 1% of land divisions approved in metropolitan Portland occurred inside the UGB, almost all of which occurred in the urban fringe.
- Up to 11 600 residential units may be constructed in the exurban area, with 60% on existing vacant lots in exception areas, 30% resulting from the creation of new lots in exception areas, and 10% resulting from farm-related dwellings built on resource land. At the current rate of development, this represents over a 20-year supply of residences.
- Much of the development occurring outside the UGB is characterized as long, narrow lots of from two to five acres located along rural roads. Newer development often occurs in a 'flag-lot' configuration wherein access is via a 60-foot strip of land that extends several hundred or thousand feet to the bulk of the property.

Table 2. Actual v allowable density of residential development, dwelling units inside the Portland UGB, 1985-89.

Analysis area	Actual density	Single family		Actual density	Multiple family	
		Allowable density	% of allowable		Allowable density	% of allowable
<i>Clackamas County</i>	4.2	6.1	69	15.6	21.5	73
Urban	4.0	5.4	93	13.8	17.8	76
Urbanizable	4.8	7.7	62	25.9	42.3	61
<i>Multnomah County</i>	4.7	6.2	76	27.7	41.1	68
Urban	4.7	6.3	75	28.3	42.2	67
Urbanizable	4.4	5.5	80	17.1	18.1	94
<i>Washington County</i>	5.2	8.4	62	15.8	19.2	82
Urban	5.5	8.3	66	17.1	20.1	85
Urbanizable	4.7	8.6	55	13.9	18.0	77
<i>Study area total</i>	4.9	7.5	65	16.5	21.3	77
Urban	4.9	7.2	68	16.9	21.2	80
Urbanizable	4.7	8.3	59	15.6	21.5	73

Source: ECO Northwest, *op cit*, Ref 10.

### *In urbanizable areas*

- Of the 41 111 residential units approved inside the UGB, 37% are located in urbanizable areas. Multi-family units accounted for 22 318 or 54% of all residential development inside the UGB, with one-third locating in urbanizable areas.
- New lots created by land divisions in the urbanizable area averaged slightly over 9000 square feet, or 4.7 units per net acre. This is only 59% of the average allowable density of 8.3 units per net acre. Multiple family units averaged about 15.6 units per net acre in the urbanizable area, or about 73% of the allowable density.

### *In urban areas*

- The urban areas accounted for 60% of the 18 628 single-family units and 65% of the 22 251 multiple-family units approvals inside the UGB.
- New single-family lots in land divisions averaged about five per net acre or 68% of allowable densities. Multiple-family units averaged almost 17 units per net acre or about 80% of allowable densities.

### *Inside the UGB*

- For all land inside the UGB, multiple-family development accounted for about 54% of all new units. This is more than the regional target of 50%.

## **Policy implications**

Oregon growth management policies require that urban and urbanizable land be separated from rural land by an urban growth boundary. What do these findings suggest about the effectiveness of urban growth management in metropolitan Portland?

Development of the metropolitan Portland area is driven by the same market forces that drive development anywhere in the USA, such as:

- increasing real incomes;
- improving mobility;
- increasing housing demand stimulated by maturing boomers;
- improving technology;
- subsidized extension and financing of urban facilities;
- deteriorating central-city services and amenities;
- easier financing of new development over redevelopment; and
- mortgage practices that require low debt-to-income ratios, thereby forcing homeowners to locate further away on cheaper land despite longer and more expensive commutes.

In light of these forces, what are the implications of metropolitan Portland's efforts at changing development patterns?

### *Development outside UGBs*

Urban growth boundaries are based on a 20-year planning period. This has meant, for example, that many public facilities inside the UGB were designed only to accommodate development needs over a 20-year period. However, many major public facilities have useful lives that exceed 50 years. When urban development reaches the UGB and the areas inside the UGB are built out, it should make sense to expand the

UGB into certain areas to accommodate the next increment of urban development. If facilities inside the UGB were designed to accommodate 50 years' growth, they could be economically expanded to serve new development. While this seems to make economic sense, DLCD would not allow facilities to be designed with excess capacity. The argument was that oversized facilities with excess capacity inside the UGB would make it too easy to justify premature UGB expansion. Thus, even if UGB expansion is needed, eventually, it may be rendered economically infeasible because of the expense of rebuilding the infrastructure inside the UGB.

There is a second, even more troubling concern. The analysis clearly shows that rural residential development has occurred immediately outside UGBs, in both rural residential exception areas and in areas zoned for farm and forest use. Residential development in the urban fringe has resulted in a low-density residential ring around much of the UGB in metropolitan Portland. As a result of low-density (1–5 acre) residential development, annexation to cities and extension of urban services will become more difficult in the future. This is because residents in this area are affluent and influential in local politics and adept at using legal systems to further protect their lifestyle. They will militate against expanding the UGB. Thus, rural areas that might have been held in reserve for future urbanization have developed in ways that are neither urban nor rural and which will be extremely difficult to urbanize in the future. Ironically, if the UGB must be expanded and it is prevented from expanding into 'exception' areas, it may need to expand into prime agricultural areas.

A package of policies that metropolitan Portland could adopt to deal with development patterns in the urban fringe may include:

- (1) Establish long-term UGB expansion areas based on 50-year public facilities needs. Indeed, recent planning rules developed by the LCDC will require metropolitan Portland to create an urban reserve that will include all areas that are 'built and committed' to non-urban development adjacent to and near UGBs. The new policy, which will be implemented during the mid-1990s, directs expansion of the UGB into rural residential areas. Strict timeliness and unambiguous standards for UGB expansion into the reserves will be critical. Without them an urban reserve designation may encourage the transfer of lands from commercial farmers and foresters to those who seek accelerated inclusion of the lands into the UGB.
- (2) Prohibit the placement of dwellings on land planned and zoned for exclusive farm or forest use within the urban reserve area.
- (3) Establish a large – preferably 20-acre – minimum lot size for rural residential areas within the urban reserve. Restrict the placement of development such that it does not conflict with long-term public facilities projects. Require that any development or land division that is approved in the absence of urban services be conditioned on an approved redevelopment plan (or shadow plat) that considers the future location of urban facilities.

#### *Development inside UGBs*

The next issues address development inside UGBs in urban and urbanizable areas: its density, the extent to which actual densities



approximate planned densities, and whether the pattern of development will inhibit future development from reaching full urban densities. Urbanizable land is defined as vacant, buildable land within a UGB, and urban land is defined as land developed with urban services at urban densities. Has development inside the UGB met with expectations? Analysis seems to suggest that it has not. Because the density of residential development is falling substantially below densities allowed by applicable zoning, the UGB may have to be expanded earlier and, as a result, be larger than expected. Moreover, single-family subdivisions are occurring in multiple-family residential zones. On the one hand, the densities of these single-family subdivisions are higher than the densities of subdivisions in single-family zones. Nonetheless, multiple-family land is being used for single-family development.

To make development inside the UGB better meet metropolitan Portland planning expectations, several policies should be implemented.

- (1) Establish *minimum* densities permitted by zoning. Zoning ordinances could specify a density range that must be achieved, rather than establishing only a density ceiling. For example, a minimum density in a multi-family zone allowing 15 units per acre could be 10 units per acre, or roughly two-thirds of the allowable density. Related to this, single-family residential subdivisions should be prohibited on land planned for multiple-family use.
- (2) Allow density shifting to achieve overall target densities. Suppose that, for multi-family zones with an allowable density of 15 units per acre, the target density was at least 12 units per acre. If a minimum density were set at 10 units per acre, substantial build-out even at this minimum density would fail to hit target densities. One solution is simply to make the minimum density the target density as well. Another solution would be to allow densities up to 17 units per acre in 15-unit-per-acre zones where the higher densities offset lower densities elsewhere ultimately to achieve the target density.
- (3) Establish target developed land densities. Metropolitan Portland jurisdictions have indeed established target average densities, but there is no accounting of the extent to which these targets are being reached. Moreover, the densities are only for planning purposes and not necessarily related to implementation. The target densities per net buildable acre are six units for small cities with population under 8000, eight units for cities between 8000 and 50 000 planned population and unincorporated areas of metropolitan counties, and 10 units for cities over 50 000 planned populations. All jurisdictions have plans meeting these targets; the question remains whether developed densities are meeting targets. If not, regional or state agencies may need formally to establish target developed land densities.
- (4) Require that local zoning ordinances not allow single-family houses in urbanizable areas where land is zoned for commercial, industrial or multiple-family use. Many local zoning ordinances follow standard American-style 'Euclidian' zoning.<sup>15</sup> Such zoning establishes a hierarchy of land uses – beginning with single family being most restrictive and multi-family, commercial and industrial being successively less restrictive. Only single-family residences can locate in single-family zones, but all land uses can locate in industrial zones. This creates land use conflicts, especially in commercial and indus-

<sup>15</sup>The term itself comes not from Euclid but from *Ambler Realty Company versus the City of Euclid, Ohio*, wherein the US Supreme Court upheld zoning as a valid exercise of the policy power functions of local government, exercised in Euclid to prevent incompatible land uses.

rial zones, which can virtually eliminate the availability of such lands for commercial and industrial uses. Local zoning codes need to assure exclusive land uses within all zoning categories except where mixed uses are designed to assure compatibility.

### **Concluding remarks**

Oregon leads the USA in its urban growth management and rural preservation efforts. Ultimately, the effectiveness of the state's planning policies depends on the extent to which local planning agencies administer local plans. The analysis of metropolitan Portland development patterns suggests that development is being directed to UGBs. Yet considerable development continues outside the UGB and efficient expansion of the UGB in the future may be jeopardized by low-density development patterns along the boundary. In response, Portland area jurisdictions are working to plan for UGB expansion well into the next century. In addition, development inside the UGB should be managed to achieve greater correlation between allowed density and actual developed density. If not, the UGB will need to be expanded sooner than anticipated. These lessons should be learned by other metropolitan jurisdictions engaged or about to become engaged in urban growth management and resource land preservation.