

**Metro**  
**Growth Management**  
**Services Department**

***Urban Growth Boundary Planning***  
***Processes and Decisions***  
***Can Be More Credible***

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**September 1997**

A Report by the Office of the Auditor



**METRO**

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**Alexis Dow, CPA**  
**Metro Auditor**

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**METRO**

**OFFICE OF THE AUDITOR**

September 25, 1997

Councilor Jon Kvistad, Presiding Officer  
Councilor Susan McLain, Chair, Growth  
Management Committee  
Councilor Patricia McCaig  
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Councilor Don Morissette  
Councilor Lisa Naito  
Councilor Ed Washington  
Mike Burton, Executive Officer

Re: Audit of Metro's Urban Growth Boundary Planning Process

The accompanying report covers our review of the Growth Management Services Department's planning process surrounding the urban growth boundary decision. We reviewed a draft report with the Executive Officer, the director of the Growth Management Services Department and his staff. The last section of this report presents the written response of Executive Officer Burton in which he accepts our recommendations.

The political climate in which Metro operates has always been volatile, but it is difficult to imagine more turbulent times than today. It is our hope that the Council will also accept this report and recommendations from this evaluation in the positive spirit in which we give them. Metro should implement them toward the end of improving overall agency credibility and garnering the support of Metro's diverse stakeholders for the tough decisions that lie ahead. UGB decisions and related performance measures are in the future, not the past. Enhancements to these technical and decision-making processes would enhance Metro's widely-recognized planning accomplishments. Our recommendations are designed to supplement, not supplant, those processes.

We appreciate the cooperation and assistance provided by staff from the Growth Management Services Department and the Executive Officer and his staff, particularly Chief Financial Officer Jennifer Sims who served as a coordinator and liaison in the final review process.

Very truly yours,

Alexis Dow, CPA  
Metro Auditor

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## Executive Summary

Urban growth management planning is Metro's primary mission. As part of this planning process, the region draws a line — called the Urban Growth Boundary (UGB) — inside which the region's urban development is to be contained. Metro's decisions on where to place this boundary have implications for such things as which lands will become housing areas and which will not, and how cities and towns will develop. Today's UGB accommodates 1.2 million people. Over the next 20 years, the UGB will likely include 300,000 to 800,000 additional people.

Metro's UGB planning processes are a complex combination of art, science, professional judgment, and policy determinations. These processes rest to a large degree on projections made 20 years into the future about such things as how many people will live here and how close we will live to each other. UGB planning processes involve arduous work while evaluating many conceptual and factual issues. Metro has made major strides over the past five years in taking an urban land planning concept to a point where apparently no government entity has been before. However, because the process often represents a "best guess" and not a certainty, and because the stakes connected to the outcomes are huge, Metro's UGB planning efforts continue to receive intense scrutiny.

The soundness of Metro's growth management planning process is key to much of its credibility. For that reason, and as part of our annual audit plan, we reviewed the UGB planning process to assess how it is working and whether opportunities exist for improvement. Although Metro has made significant accomplishments in its growth management planning efforts, we found opportunities for improving the credibility of Metro's UGB planning process and related decisions. These improvements center on three main areas: (1) recognizing more fully a wider range of future uncertainties; (2) discussing and presenting the different potential outcomes in detailed form; and (3) developing ways to bring about a stronger degree of consensus among stakeholders.

### **Metro's Planning Process**

State law requires that Metro's UGB be large enough to accommodate the next 20 years of population and employment growth. Metro's current UGB contains about 233,000 acres, or 364 square miles. Based in large part on an elaborate weave of analytical and judgmental information contained in a key document called the Urban Growth Report, the Metro Council must decide if the current UGB needs to be extended, and if so, by how much. State law also requires that such decisions be revisited at least every five years.

Metro's model for helping the Metro Council make this decision involves making assumptions about key factors of the Urban Growth Report, called the "Nine Variables," as shown in Table 1. These variables are part of Metro's "17-Step" UGB capacity analysis. Each variable involves making an informed projection. For example, the variables relate to how many people will move here (Variable 1), how much land will be needed for new streets and parks (Variable 3), and the speed at which local jurisdictions will establish property zoning standards that may require area residents to live closer together (Variable 5).

**Table 1.** The "Nine Variables": Metro's Planning Model for Estimating UGB Size

Variable	Description
1	<u>Forecasts population and jobs</u> for the next 20 year period.
2	Estimates amount of <u>unbuildable land</u> (for example land over 25 percent slope, wetland areas).
3	Estimates reductions to remaining buildable land for streets, parks, etc. This is referred to as the " <u>Gross-to-Net</u> " variable.
4	Estimates reductions for the difference between zoning maximum densities and actual built densities. This is referred to as " <u>Underbuild</u> ."
5	Adjusts for UGB capacity lost during the time local jurisdictions revise their plans and ordinances to implement the 2040 Growth Concept. This is referred to as " <u>Ramp-Up</u> ."
6	Estimates reductions for buildable parcels with full buildout obstacles (for example, land with 8 to 24 percent slopes, wetlands). This is referred to as the " <u>Zell Factor</u> ."
7	Estimates the amount of additional <u>redevelopment</u> of currently developed properties.
8	Estimates probable <u>infill</u> on built land.
9	Estimates amount of <u>farm tax assessment</u> lands within the current UGB that are likely to be urbanized.

The Metro Council will determine whether to expand the UGB based on its considerations of these variables. Even a modification to one variable can have a major effect on the "bottom line" determination of whether to expand the UGB and if so, by how much. Taken together, modification of critical variables can change the results from concluding that the current UGB has between a "surplus" of about 10,000 acres to a "shortfall" of about 13,000 acres.

**Standards for Assessing the Planning Process**

Metro has no specific standards defining what constitutes a credible and complete UGB decision process, other than basic compliance with the state's generic land planning laws and the code of ethics of the planning profession. From a performance audit perspective that requires standards against which to audit and in the absence of Metro standards, we developed standards that we believe should be very relevant to Metro's UGB planning processes. After extensive discussions with planners, economists, land use consultants, and others who deal with the uncertainty inherent in predicting the future, we developed three intertwined and sequential planning standards for assessing the credibility of Metro's procedures. These standards have a sound basis in practices followed by others who predict the future and strive to generate the best possible information for informed decision-making. The three standards are:

- Uncertainty in projections and forecasts should be clearly recognized.
- Outcomes associated with several projections and forecasts should be discussed.
- All interested stakeholders should assist in reaching consensus projections or forecasts that can be presented for decision-making purposes.

**Stakeholders' Concerns Reflect Opportunity for a More Credible Planning Process**

Metro has made myriad accomplishments in its efforts over the past 5 years to establish an urban growth planning concept and manage the UGB. Metro's work and accomplishments on growth management are widely acclaimed as innovative and effective. Nonetheless, extensive analyses of planning data and discussions with many stakeholders in Metro's planning process lead clearly to a conclusion that Metro must take even more steps to ensure the credibility of the process. We found problems with Metro meeting all three planning standards, as detailed in Chapter 3. Here are examples:

**Recognizing uncertainty in projections** — For the most part, Metro UGB planning documents have contained just one number per

variable when the reality is that many alternative numbers are plausible. This practice has subjected Metro projections, forecasts, and assumptions to considerable criticism. For example, real estate interests claim to have data that show Metro's projections are incorrect with regard to the extent to which already developed parcels of land will be redeveloped and made to accommodate a higher population density. Conversely, proponents of a small or no expansion of the UGB claim to have data that show Metro has overestimated the need for an immediate UGB expansion.

**Considering alternative outcomes** — Metro's practice of not fully considering the implications of other plausible estimates reduces the information available to the Metro Council and other stakeholders about the broader range of outcomes that may occur in the future. Although Metro prepared more than one population forecast, almost all analysis was done using just the Moderate Growth forecast. However, the High and Low projections can have profound effects on the need for UGB expansion. For example, the high population scenario would require about 13,600 acres more to be added to the UGB.

**Reaching consensus** — Despite many worthwhile efforts such as outreach programs and citizen involvement panels, the available evidence indicates that stakeholders often feel their views have not been fully considered. These stakeholders represent a wide range of viewpoints with regard to the size of the UGB. They have often taken considerable effort to ground their conclusions in data and in extensive analysis. To the degree their viewpoints are considered as reputable in the community, and to the degree that these viewpoints remain unaddressed in the process of achieving consensus, the credibility of Metro's planning process can suffer. For example:

- At the request of a Metro Councilor who sponsored the work, three Portland State University professors from the Center for Urban Studies analyzed the potential impacts of the UGB size on the area's housing markets. Their study showed that Metro was not doing sensitivity analysis for such critical factors as redevelopment rate, infill rate, lot sizes, ramp-up, and underbuild variables — factors that had large implications on whether to expand the UGB. They said that, based on earlier agreements, they expected that after the study was completed, Metro would acknowledge it and work jointly on issues of common ground. However, their perception was that Metro officials attacked their independence and credibility and dismissed the study as biased and of little value.

- In 1995 the Metro Executive Officer appointed a business-oriented "2040 Means Business Committee" to examine Metro's planning direction and recommend solutions to overcoming obstacles. The Committee hired real estate and economics consultants who concluded that Metro staff had not fully considered certain market-related ramifications of growth planning. The consultants said, however, Metro's reports on their work did not present a balanced or complete disclosure of their conclusions and did not fully represent the results of their work.
- The "Zero Option Group," a coalition of interest groups, local planners, and others issued a document concluding that Metro staff had erred on its UGB planning assumptions related to such factors as redevelopment and infill rates, lot sizes, and future numbers of townhouses. While Metro staff said they ultimately followed the advice of the group and included the group's recommended redevelopment and infill data in the analysis, the perception voiced by members of the group was that Metro initially refused to consider its position. For example, Metro planning staff sent a memorandum disparaging the group's conclusion to an advisory committee. Also, one member stated that a Metro official contacted his employer, another governmental agency, as part of an effort to stop him from presenting his position at subsequent meetings. The Metro official, however, felt it was his duty to determine if the employee represented the agency or himself. He said that he did not intend to discourage input to the planning process.

**How the Process Can Be Strengthened**

We are well aware that a high degree of controversy will likely continue as Metro makes difficult UGB choices. Decisions of such magnitude simply cannot be all things to all people. However, while Metro's difficult growth management decisions may likely continue to be controversial, Metro can narrow the existing level of contentiousness. Although Metro has made significant progress in just a few years, it must be open to ways of reducing the degree of distrust in its processes and decisions.

The current positions of the two main opposing viewpoints are for a UGB expansion between 3,000 and 10,000 acres. While this may be considered a relatively narrow range, the degree of contentiousness remaining among the stakeholders can be narrowed through the more comprehensive and credible process we describe. Furthermore, having a more effective process to arrive at such numbers is especially critical because Metro alone cannot make the growth management concepts work. Metro relies almost totally on its 27 partners, myriad interest groups, and the general public



for successful implementation of the concepts. Working and gaining consensus with these and other stakeholders is imperative.

Metro can enhance the credibility of its growth management process by taking advantage of opportunities to: (1) more fully recognize the high degree of uncertainty inherent in projections and forecasts; (2) present the positives and negatives of choosing one estimate over another; and (3) seek greater consensus among stakeholders on a projection or forecast that can be used for decision-making purposes. To enhance its credibility in UGB planning and decision-making, we believe Metro needs to implement these recommendations:

**Recommendation 1:** To better clarify the supporting analyses for the data needed in the UGB decision process and related performance measures, the Executive Officer should:

- Establish one or more peer review groups to work with Metro planning staff in verifying supporting evidence and analytical procedures which support work on the "17 Step" planning process and related efforts on Performance Measures. At a minimum, these groups should review capacity data sources, assumptions, methodologies and analyses. The peer review groups could be different for each variable, or they could review similar types of data. The groups should include people with a high degree of technical abilities, and recognized experts in geographic information systems, data collection, land use, and economics. They should be independent and not identified with any group or individual having a vested interest in the outcome of policy decisions.
- Publish the results of these reviews to stakeholders and stakeholder groups, and to the general public as part of the citizen involvement process.

**Recommendation 2:** When there is a range of accepted uncertainty in either the evidence or in the projections based on the evidence, it should be clearly and fully discussed. Metro should widely disseminate analyses, conclusions, and recommendations to stakeholders and the general public.

**Recommendation 3:** Projections, forecasts, and assumptions that contain a range of possible outcomes should be discussed in terms of the potential outcomes for UGB decisions. Again Metro should widely disseminate the record of these discussions throughout the stakeholder community, the general public, and during the citizen involvement process.

**Recommendation 4:** The Executive Officer, staff, and Metro Council should use the results of the process that evolves from following these recommendations to better establish and ensure consensus on the individual variables and the overall need, if any, for a change in the UGB and for consideration of Functional Plan Performance Measures. Metro's development of the Performance Measures is an important part of this process of enhanced credibility because the measures will eventually form a "feedback loop" which will document how and how well its growth management planning processes are working and the specific effects of policy decisions.

**Recommendation 5:** As part of the total overarching effort related to the above recommendations, the Executive Officer, in consultation with the Metro Council, should identify all potential stakeholders who need to know these details. Metro's Executive Officer, staff, and Council should work consistently and continually with these stakeholders and keep them fully informed about the data produced and outcomes associated with the above steps. Metro should stay abreast of stakeholder activities to determine ways to continually improve an open stakeholder involvement process.



## Chapter 1. Introduction

The chapter has two purposes. First, for readers who are not familiar with how Metro conducts land use planning in the Portland Metro area, it provides a lengthy explanation of Metro's Urban Growth Management processes, procedures, accomplishments, and future plans. It highlights important aspects of growth management, such as the Urban Growth Boundary (UGB), the Urban Growth Report, and other parts of the planning process. Appendix A, Glossary of Terms, further defines these and other terms related to UGB planning processes. Second, the chapter explains the objectives we established for this review and the methods we used to gather and analyze information.

### **Overview of Metro's Planning Process**

In 1978, Portland metropolitan-area voters approved a ballot measure that made Metro the country's first elected regional government. The voters directed Metro to coordinate land use plans of the region's 27 jurisdictions and oversee other issues of "regional significance." Oregon state land laws require Metro to establish a regional Urban Growth Boundary (UGB). The same laws also empower the Metro Council to make binding policy decisions regarding the UGB.

In 1992, the region's voters approved a ballot measure establishing the Metro Charter and directing Metro to make regional growth management its primary mission. Metro's new charter required the adoption of a long-range statement of the region's outlook and values, called the Future Vision Report. It also required a comprehensive set of regional guidelines for local jurisdictions on land use, transportation, water quality, natural areas and other issues of "regional significance," called the Regional Framework Plan.

Also in 1992, Metro began a long-range and extremely intense UGB planning process, then known as Region 2040. Metro intended that Region 2040 further define and clarify the goals and objectives set out in the Regional Urban Growth Goals and Objectives (RUGGOs).

RUGGOs are required by state law and are essentially an urban growth policy framework that represents the starting point for Metro's planning program. The Region 2040 effort culminated with the Metro Council's adoption of the 2040 Growth Concept, which was added to the RUGGOs in December 1995.

### **Urban Growth Report**

The report is Metro's comprehensive study designed as a primary aid to the Metro Council in determining how quickly land is being used within the UGB, how likely it will be used in the future, and the extent to which UGB expansion will be needed. The 1996 draft Urban Growth Report itemizes the "17-Step" Growth Management Planning process<sup>1</sup>. The report highlights the "Nine Variables" of the 17-Step process and the related assumptions applied. Metro updated the report in a draft May 1997 version that was similar in scope to the 1996 draft. One difference involved a refining of the "17-Step" planning process into a "15-Step" process. For purposes of presentation in this report, however, we will refer to the more detailed "17-Step" process.

The Urban Growth Report has three parts: (1) the regional 20-year forecasts of population, housing, and employment; (2) buildable and redevelopable land inventory; and (3) urban development patterns. Metro issued a related document, the Housing Needs Analysis, concurrent with the Urban Growth Report. The forecasts and lands inventory elements are required by State law and the Metro Code. Metro ordinance requires updating the report at least every five years. The Metro Council is currently considering issues presented in the Urban Growth Report and is scheduled to adopt it in the next few months.

### **Urban Growth Boundary**

When voters approved Metro's responsibilities in 1978, establishment and management of the region's UGB became one of Metro's key functions. Adopted in 1979, the Metro UGB is currently a 364-square mile area that includes 24 cities and urban portions of three counties and contains 233,000 acres. Between 1979 and 1996 the Metro UGB was adjusted through relatively small quasi-judicial actions<sup>2</sup>. About 2,600 acres have been added to the UGB through 35 quasi-judicial actions. Current deliberations on a possible UGB expansion are larger in scope and will be a legislative decision by the Metro Council.

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<sup>1</sup>Appendix C summarizes Metro's "17 Step" Planning as an Aid in Calculating UGB Capacity.

<sup>2</sup>Quasi-judicial decisions on UGB expansion occur when the Metro Council receives an application from a specific party, such as a property owner or land developer, requesting certain land be added to the UGB. The Metro Council then sits "like a judge" to determine if the applicant meets all applicable criteria. Quasi-judicial decisions are in contrast to the larger scope legislative decisions that Metro initiates.

Planning the location of the UGB involves incorporating the plans and growth-projections of three counties, 24 cities and more than 60 special districts. The UGB is based on a projection of the need for urban land for the next 20 years. Moreover, State law mandates UGBs as part of the statewide land-use planning program. The objectives for management of the UGB are to (1) plan and promote the efficient use of land; (2) improve the efficiency of public facilities and services; and (3) preserve prime farm and forest lands outside the boundary.

### Region 2040

Metro began an intensive public outreach effort in 1992 to involve citizens of the region in the decision making process by getting answers to some basic livability questions. Questions were designed to describe the growth management choices available to the region. Metro also attempted to elicit a set of priorities regarding which facets of citizens' priorities were most important to preserve. The public told Metro that:

- A sense of community is important.
- People favor the preservation of natural areas, farm, and forestlands.
- People value quiet neighborhoods and want accessibility to shopping, schools, jobs, and recreational opportunities. People would accept limited changes in their neighborhoods in order to protect the region against urban sprawl, but they oppose major increases in density near their homes.
- The impacts of growth negatively impact people's quality of life.

Metro also employed urban development analysis tools and forecasting technologies to study the ramifications of different growth management strategies. Metro identified a wide range of possible approaches and analyzed impacts to neighborhoods, transportation systems, natural resources, and key urban services. This intensive study allowed Metro to focus on a smaller number of possible options to pursue and prepare for the local jurisdictions and the public to review.

Considering this research and public comment, Metro developed four basic options for how the region could grow. Metro analyzed these options for impacts on land consumption, travel times and distances, open spaces, and the effects of increased density on air quality and other factors. Metro analyzed the following options:

- "Base Case" assumed continuation of current urban growth patterns with a greatly expanded UGB.
- "Concept A" was based on "growing out" by adding land for residential development to the UGB, by about 55,000 acres.

- "Concept B" was oriented to "growing up" by increasing densities within the current UGB which would remain unchanged.
- "Concept C" combined aspects of A & B, but accommodated about one-third of the growth in neighboring satellite cities.

### **2040 Growth Concept**

The Metro Council reviewed comments from surveys and other Region 2040 public involvement efforts, analysis of land use experts from around the country, and scientific data provided by Metro staff. What became clear was that all four options had positive and negative impacts. The Metro Council discussed the possibility of merging the concepts to try to maximize the positive ramifications of each one, while minimizing the less desirable outcomes.

In response to a 1994 outreach effort, 17,000 people expressed their opinions about the four specific growth management strategies that could be implemented by Metro to manage growth. The majority of respondents favored:

- Increased development along transit lines.
- Growth in established centers.
- Reduced average new residential lot sizes.
- Reduced parking in retail and commercial development.

In September 1994, the Metro Executive Officer proposed to the Metro Council a concept reflecting both the optimal elements from the technical analysis of the growth concepts, and the public values reflected in the outreach results. This new concept evolved into the 2040 Growth Concept. Directives within the 2040 Growth Concept include:

- Encourage compact development to use land more efficiently, focusing on downtowns, large and medium sized population centers around the region, business centers along the region's "main streets" and major transit routes.
- Designate natural land reserves outside the regional boundaries and open spaces within the region to permanently protect natural areas, parks, streams, and farmland.
- Promote a transportation system within the region that accommodates alternative ways to travel, such as bicycles, walking and mass transit, as well as cars.
- Encourage a range of housing types to promote diverse housing options for all residents of the region.

### Urban Growth Management Functional Plan

As Metro adopted the 2040 Growth Concept, key figures from within Metro and from the local jurisdictions recognized the pressing need to implement the directives within the growth concept as quickly as possible. Between 1992 and 1994 about 42,000 new people had arrived in the Metro boundary. This strong growth rate was putting increasing strains on cities and counties within the region. Elected officials and staff began working on an Urban Growth Management Functional Plan. This plan establishes specific requirements and tools for local governments to use in meeting their own growth management goals.

The Metro Council adopted the Urban Growth Management Functional Plan in November 1996 after receiving a unanimous vote of approval from its local government partners, the charter-mandated Metro Policy Advisory Committee (MPAC). The functional plan went into effect in February 1997. Local governments have until February 1999 to revise their comprehensive plans to be consistent with the Functional Plan.

### Regional Framework Plan

Metro intended that its Framework Plan contain all policies that will direct the region's growth. The plan, to be adopted by the Metro Council by December 1997, will provide specific guidelines that city and county governments will use to create and preserve livable communities. The charter mandates that the plan address certain issues, including:

- management and amendment of the urban growth boundary
- protection of lands outside the urban growth boundary for natural resource use and conservation, future urban expansion or other uses
- urban design and settlement patterns
- housing densities
- transportation and mass transit systems
- parks, open spaces and recreational facilities
- water sources and storage

### Questions and Answers on Evaluation Objectives, Scope, and Methodology

#### Why did we conduct this review?

The voter-approved 1992 Metro Charter created the Metro Auditor's Office. The Auditor was elected in a region-wide vote in 1994. The Auditor's primary duties include making continuous and independent reviews of Metro operations, such as audits to evaluate its programs' performance and effectiveness. The Auditor issues reports to the Metro Council and the Executive Officer on the results of reviews. The office aims to provide Metro with accurate information, unbiased analysis, and



objective recommendations on how best to use public resources in support of the regional government's mission.

We determined that we should undertake a performance audit of Growth Management activities because of the overall significance of that function at Metro and the amount of diverse opinion on the reasonableness of Metro's growth management planning process and decisions.

Our basic audit objectives were to: (1) to evaluate Metro's UGB planning standards and criteria that underlie its growth management decisions; (2) assess Metro's planning process to determine how it is working; and (3) determine whether opportunities exist for improvement. Sound management of this process is important for many reasons, including:

- Critics of Metro's growth management process and decisions have raised serious concerns about the credibility of Metro's UGB decision processes.
- Two recent draft Urban Growth Reports identified a need to expand the Metro UGB in what may be Metro's first legislative action on the matter. The Metro Executive Officer has also called for UGB expansion. Contentiousness has grown with these announcements -- some thinking the expansion is too extreme while others view it as less than adequate.
- The partnership between Metro and its 27 constituent governments is unique and developing trust in decision-making is a key factor. Metro must be able to offer reasonable grounds for its processes and decisions.
- A look at the soundness of the process is all the more important because the Metro Council's UGB decisions will be based heavily on its consideration of the Growth Report's nine variable factors.

**What aspects of the growth management process and decisions did our review cover?**

We concentrated our review on processes and outcomes associated with Metro's draft Urban Growth Report of March 1996. Relatedly, in May 1997 Metro issued a revised draft of this report. The two reports are very similar in presentation, analysis, and processes involved in their creation. Metro issued the May 1997 draft report as we concluded our field work -- and we did not analyze it to the same degree as we did the 1996 edition. However, the planning processes related to both reports were essentially the same. The primary aspects of the draft 1996 Growth Report that we reviewed centered on Metro's application of certain planning standards to its development, presentation, and decisions on the "Nine Variables." As part of this, we sought out, considered, and evaluated a wide range of

views and documents. Because we focused our review on the UGB planning processes, we did not develop "bottom lines" as to which of these often contrary views and estimated numbers, such as infill and ramp-up rates, were relatively "right" or "wrong."

#### **How did we do our work?**

Recognizing the voter mandate that growth management is Metro's primary function, we performed a preliminary audit survey of Metro's Growth Management Services Department. The survey's intent was to determine if significant issues existed in the department that should be further developed. During the survey, we identified several issues that we viewed as significant and in need of more detailed review, including issues related to UGB planning. At the beginning of our more detailed review, we discussed our planned work with Metro officials. As part of this discussion, we agreed that it would be useful if our work could comment on why there still exists so many differing views on the range of certain variables. We concluded that we would look into this possibility and would proceed to where audit evidence took us. As our work progressed in relatively tight timeframes, we found that determining the reasonableness of so many views was neither feasible nor relatively significant in view of what we found to be a more relevant, critical, and long-term issue -- the credibility of Metro's UGB planning processes.

As part of the detailed audit review we further evaluated basic issues relevant to Metro's processes and procedures for evaluating UGB decision factors. Our audit methods involved reviewing extensive documentation and interviewing myriad officials who represent diverse views on Metro's growth management planning procedures, practices, and decisions. Documentation reviewed included State laws and regulations, draft and final Metro planning documents, various Metro standards such as the Metro Charter and Code, RUGGOs, Metro decision documents, and outside analyses of such documents, and critiques and endorsements of Metro's planning efforts. We performed interviews and reviews of documents to gain an understanding of the official record of support for and criticisms of Metro's growth management practices and procedures. Those we interviewed included Metro officials and staff, members of Metro advisory committees, local officials, representatives of interest groups, and members of the private sector.

We performed our review between October 1996 and August 1997. We performed our work in accordance with generally accepted government audit standards.



## Chapter 2. Urban Growth Boundary Decisions Require Sound Planning Process

Land use experts in many quarters regard Metro's planning efforts and accomplishments as examples of leading-edge planning. Metro's growth management process is considered by many experts in the field to be the most sophisticated of its kind ever undertaken. However, because the process often represents a "best guess" and not a certainty, and because the stakes connected to the outcomes are huge, Metro's UGB planning efforts continue to receive intense scrutiny and remain the focus of controversy. Various groups continue to disagree over whether the UGB should be expanded, and if so, by how much. As part of our evaluation, we sought to ascertain or develop standards that would provide an objective means of assessing the UGB planning process and determining if it could be improved. This chapter describes the rationale behind the standards that we developed.

### Urban Growth Boundary Planning Process Is Controversial

Metro's growth management planning is a major endeavor. Today's UGB accommodates 1.2 million people. Over the next 20 years, the UGB will likely hold between 300,000 and 800,000 additional people. Estimates on what size the UGB should be have been developed by various groups even as the Metro Council considered the staff's latest draft Urban Growth Report. These groups take many positions on the issue of UGB size, ranging from no boundary expansion at present to an immediate expansion of 10,000 acres or more. For example:

- The Group, an *ad hoc* coalition of local planners, environmentalists, and others who advocate little or no UGB expansion until the Functional Plan has more time to be implemented, believes it has factually demonstrated that the denser urban growth model of the 2040 Growth Concept is viable. In this regard, the group believes it has demonstrated that there is no need to expand the UGB at the 1997 Metro legislative review. The group also believes that, under certain assumptions that include full implementation of Metro's Functional Plan, the current UGB may be able to absorb growth for up to 20 years.
- A number of other groups hold an opposite view. These groups include Portland State University professors who researched the issue, real estate consultants, homebuilders, and others in the private sector. Such groups contend that, without an immediate and significant UGB expansion, the area will likely experience significant business flight and unacceptable increases in housing costs.

While the Metro Council has yet to make its decision, Metro's Executive Officer has stated on several occasions since 1995 that the UGB probably needs to be expanded. Most recently, the Executive Officer said in May 1997 that the UGB should be expanded by about 4,000 acres.

As discussed in Chapter 1, Metro has had many long-standing discussions on UGB size prior to its drafting of the Urban Growth Report. With the development of the Regional Urban Growth Goals and Objectives in 1991, Metro concluded that the region should pursue a policy of "compact urban growth." Metro followed up in 1992 with the Region 2040 effort that included population forecasts and related possibilities for UGB expansion. The Metro Council subsequently adopted the Metro 2040 Growth Concept and its mid-range population forecast.

Throughout Metro's UGB planning processes, groups on either side of Metro pronouncements of preferred or estimated UGB size have voiced their disagreement with Metro's positions. They have done this often by criticizing Metro's specific numbers and projections, such as: (1) the future average lot size of a single family home throughout the 20-year planning horizon, and (2) Metro assertions regarding how much land will be redeveloped during the same period. While different numbers by themselves may seem unimportant, each one can change the conclusion on whether to expand the UGB. For example, a 10 percent change for land considered unbuildable would, taken alone, move the acres needed by plus or minus 1,600 acres.

The Chair of the Metro Council's Growth Management Committee stated the essence of this issue at an April 1996 meeting. She said that the Committee had various numbers as to what percentage of vacant lands would be considered as unbuildable. The estimated range of unbuildable lands was from 7 to 18 percent. She further stated that the persuasive argument that people want and need to know is why 12.7 percent is more realistic than 19 percent or 23 percent or 15 percent. She summarized the matter by raising the issue as to what is the overall criteria that puts all these factors together to make that final determination on unbuildable lands believable. Her statement could apply to all nine variables.

**Existing  
General  
Standards**

We examined three sources for standards that might shed light on possible principles for Metro planners as they originate and present data in support of the UGB decision. They are the Metro Charter and Code, State of Oregon land use laws and regulations, and the American Planning Association standards.

We found that the guidelines at Metro are silent on standards for the presentation of forecasts, projections, and assumptions that underlie the planning for changes in the UGB. Next, we found in this regard that State of Oregon guidelines require only that UGB decisions be based on factual information. Thirdly, we found that the American Planning Association, and its associated American Institute of Certified Planners (AICP), states that planners shall "...not misrepresent facts or distort information for the purpose of achieving a desired outcome..." Metro planners believe they have fully met the State and AICP standards. Their position is that there are substantial State planning standards and goals, including requirements for gaining citizen participation and considering buildable land and redevelopment. However, from an independent audit perspective, we found such standards both overbroad and not related directly to development and presentation of UGB analyses.

**Standards  
Developed on  
the Basis of  
Related  
Activities  
Involving  
Estimating and  
Projecting**

From an evaluation viewpoint, Metro has no defined planning standards against which to audit planning issues that address recognizing and discussing forecast information related to the UGB decision process. In the absence of readily available, specific standards for assessing performance, evaluation must often await formulation of such measures. One common audit recommendation in such cases is to ask the organization to develop such standards. Another approach is to develop or establish performance standards. In this case, we believe that the analytical process leading to a UGB decision is universal enough to evaluate even in the absence of more specific Metro or professional planning standards. We further believe that improvements in the UGB decision process may occur more quickly with this latter approach than to ask Metro to develop performance standards on its UGB planning processes.

To relate the more universal analytical processes to the UGB planning activities, we relied primarily on discussions with planners, economists, and land use consultants. A unifying thread among these discussions was that openness and clarity are the indispensable ingredients for providing useful information to decision-makers. Moreover, a UGB decision process that is lucid and open to all could bring the stakeholders along as the interim decisions are being made, and thereby improve trust and enhance the credibility of the planning process.

To this end we are establishing planning standards after Metro has completed several years of complex UGB-related decision processes. We discussed our methods on this matter and reviewed our established standards with economists and others in the planning profession. They agreed the standards were reasonable starting points for an endeavor

involved in dealing with the long-term future. The three standards, listed in proper sequence, are as follows:

- **Uncertainty in projections and forecasts should be clearly recognized.** Projections of any type are subject to uncertainty, therefore they require clear recognition of the range of estimates that are plausible. The 20-year planning horizon at Metro for UGB decisions is especially long, thereby accentuating the need to present the uncertain nature of the estimates in the planning process for all variables.
- **Outcomes associated with several projections and forecasts should be discussed.** A range of estimates for each variable, or cumulatively for all variables, would lead to several outcomes related to the UGB decision. Metro should lead discussions about the implications of the multiple outcomes. All discussions should include a full presentation of potential impacts.
- **Interested stakeholders should be heard and have their views considered** in reaching consensus projections or forecasts that can be presented for decision-making purposes. Although sound policy decision-making needs a single number for each variable, Metro should strive to bring all stakeholders to consensus on the variables after considering the possible range of outcomes and their varied impacts on the need for new urban land.

The discussion below presents information that explains our basis for establishing these standards.

#### **First Standard: Dealing With Uncertainties of Projections**

The future is uncertain. As the National Association of State Budget Officers stated, "Models that attempt to predict human behavior are unstable...and a high margin of error is probable." Further, the association noted that "There can be significant uncertainty associated with forecasts prepared this far (eight quarters) in advance....." The increased uncertainty associated with eighty quarters or the 20-year forecast required for the UGB decision is even more significant.

We believe that a first step in the presentation of planning data should be a clear exposition on the plausible range of estimates for each planning variable. The most important attribute of recognizing the range of possible outcomes is that it reflects reality.

One relevant standard from the AICP is that a planner "...must strive to provide full, clear, and accurate information on planning issues to citizens and governmental decision-makers." Within an advisory ruling on this standard, the AICP notes that "Decision makers may demand a greater degree of certainty...than the capability of analysis or sufficiency of data can satisfy." This implies that planners must present the uncertainty that is inherent in projections, forecasts and assumptions in spite of pressure to hold out one estimate as the true number.

Much of the uncertainty in describing the future exists because incomplete historical data almost guarantee inaccurate future estimates. As an example, Metro staff have only recently begun measuring infill and redevelopment rates. With at most 2 years of building permit data, a projection 20 years into the future is built on a very narrow and uncertain base. This type of uncertainty about the adequacy of the evidence should be clearly disclosed and discussed when projecting such a variable.

In addition, even activities which are adequately measured over long time periods are not always understood as to cause. Projections or forecasts of these activities will thus contain a degree of uncertainty. For example, a regional economist told us that no one can really explain why people move into and out of an area such as the UGB. Therefore, the population model used by Metro forecasters contains a high degree of uncertainty, because as much as two-thirds of the expected increase in the "most likely" scenario arises from net migration.

### **Second Standard: Dealing With the Effects Of Alternative Futures**

After the uncertainty has been clearly recognized about the actual evidence or about the difficulty in projecting human behavior 20 years into the future, the second step should be an assessment of the effects of different outcomes inherent in such an environment of uncertainty. In a situation such as the UGB decision process, panels and/or experts in the relevant areas could be used to declare useful ranges or finite options to discuss.

Analyses and discussions about the different projections called for by the future uncertainty standard are necessary to assess their importance. Some professions make use of sensitivity analysis to highlight the degree of change in a "bottom line" number if the assumptions are changed. Others use "what if" presentations to demonstrate what could happen if a worst case/best case scenario is used. Others go through "risk assessment" in order to demonstrate areas of small probability/high cost outcomes. All



of these techniques are used to supply information to policy makers about the effects of uncertainty on future behaviors.

As an example, the draft Urban Growth Reports recognize that the zoning changes, among other items, may not be in place in all jurisdictions in the first year of the potential change in the UGB. This variable recognizes the time involved for local jurisdictions to change to the 2040 Growth Concept density standards. However, Metro has little historical evidence for how long the changeover would take. While the acreage involved is small (the 5-year "ramp up" is estimated to increase the acreage needed to accommodate the 2017 most-likely population by about 600 acres), the different implications of faster or slower "ramp up" are nonetheless very important to the UGB decision.

### **Third Standard: Developing Consensus About Planning Numbers**

After establishing two standards that promote the presentation of ranges of possible outcomes that reflect real-life uncertainty and call for discussion of their related effects, it may seem counterproductive then to invite the stakeholders to come together and reach a consensus. This is not so. We believe that participation in the process called for by the first two standards is necessary for eventual consensus because the stakeholders will have worked collaboratively on the planning processes with Metro staff. Through this, they might better understand that many alternative growth scenarios can also be valid representations of the future. Moreover, they will have fully participated in the discussions about the UGB effects of modeling many outcomes.

We believe that the benefits of consensus are many. In the Metro environment with 27 local governments, diverse interest groups, and others under a unified planning umbrella, consensus is a practical and political necessity. Building to consensus about the variables based on a lucid projection exercise, through which stakeholders can see all data and implications, would greatly help the stakeholders own the eventual decision. This would come with the benefits of trust, clarity, and credibility accruing to the planning process and therefore the planning outcomes.

### **Chapter 3. Metro's Urban Growth Boundary Planning and Decisions Can Be More Credible Through a More Defined and Open Process**

Metro has made many significant accomplishments in a compressed time to establish a comprehensive growth management planning concept. Metro's work and outcomes on this issue are likely the only type of its kind in the country. For stakeholders directly involved in the outcome, however, the credibility of Metro's planning process rests not with how innovative the process is, but in the degree of confidence they feel they can place in the that process and its outcomes.

Recent Metro meetings have revealed that the estimated range of UGB expansion rests between 3,000 and 10,000 acres. When viewed against the UGB's current size of 233,000 acres, both the expansion and the differences seem small. We believe, however, that if a process similar to the standards set out in the previous chapter had been in effect during the 2-year UGB decision process, the range of estimates may have been smaller, the estimates may have had quite different values, and contention related to the estimates probably would have been reduced.

We found no direct evidence of deliberate bias, one way or the other, in Metro staff's presentation of UGB-related data. However, we did find that stakeholders held strong views that the process itself was either quite biased or open to bias. One stakeholder in the UGB planning process succinctly summarized this issue in stating that: "Planning is not solely about picking the right answer. It is also about the process of getting there." The expressions of uncertainty and skepticism we found indicate that for all three standards we used, Metro has much room for improvement. In this chapter, we describe what we learned in this regard. Because of the overlapping nature of the three standards we used, we discuss the first two standards together.

#### **Uncertainty And Its Related Range Of Effects Is Too Often Missing**

Recognition of uncertainty and discussion of plausible outcomes were problematic throughout Metro's planning processes. The following examples illustrate the kinds of problems we identified that relate to Metro's planning process. These examples address issues relevant to: (1) questionable land inventory data that raises uncertainties; and (2) limited use of population forecasts that do not fully discuss potential outcomes.

### Inventory Data Contain Errors

City planning departments, real estate developers, and others who make use of Metro's data pointed out that some of Metro's information was sometimes of questionable accuracy and reliability. A primary example is data contained in a database called the Regional Land Information System (RLIS).<sup>3</sup> RLIS contains the land inventory data that show the baseline of current types of UGB acreage and is the basis for many UGB decisions. Some of Metro's partners in the 2040 Growth Concept documented many cases where Metro's inventory data on such items as vacant lands, developed and developable lands, and demographic data were inaccurate or incomplete. For example:

- A vice-president of a property development company presented numerous instances of database errors. Among them were parcels of land that had been in use for a long time, but Metro data showed it as "No Data Available." Such areas had contained for some years a park-and-ride-lot, a school, and some commercial property. She also documented some land shown by Metro as "Agriculture" that was actually developed as single-family, multi-family, or commercial sites.
- Community Development staff from a large city documented many examples of Metro's vacant land inventory data being outdated. As one specific case, they noted the March 1997 Metro data do not recognize numerous subdivisions that were built and in place for at least 18 months.
- The head of demographics and planning for a large school district said that Metro's data were not up-to-date enough for planning needs. For example, Metro's data showed several areas within district boundaries as vacant land, when they had been developed for many months, if not years.

Metro acknowledges that RLIS data are likely to contain errors. The purchase agreement under which it makes this information available to cities, developers, and others states as follows: "Metro's RLIS data is collected from the region's 24 cities and three counties for general planning purposes and Metro therefore does not warrant the accuracy of data originated by these jurisdictions. Metro has collected and is maintaining these data to meet the accuracy requirements of a broad-scale

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<sup>3</sup> We performed a review of Metro's RLIS products concurrent with this review. Our report, "RLIS Data: Customer Survey and Implications" cites related examples. It was issued September 9, 1997.

land information system. Therefore, the level of accuracy is deemed adequate for regional planning purposes.”

These caveats should also apply to Metro’s use of the data in the UGB planning process. We believe such qualifiers could underscore the need for Metro to recognize in its UGB forecasts and projections that fact that data of broad-scale accuracy may be too uncertain to initially support a single number, such as the additional UGB acreage cited by the Executive Officer and the Urban Growth reports. Since Metro did not consider this uncertainty in its inventory data, apparently no range of estimates for such inventory of items as buildable and vacant land was available to discuss possible outcomes.

#### **Population Forecast Does Not Discuss Full Extent of Outcomes**

Metro population forecasts were prepared that actually vary by as many as 420,000 people in 2015. Discussing plausible values on either side of the single forecast used in the draft Urban Growth Report analysis would have presented several large differences regarding the amount of land deemed necessary to meet future growth needs. However, Metro staff neither discussed the several recognized population forecasts regarding their potential effect on UGB decisions, nor estimated their effect in combination with other variables, such as with uncertainty about expected housing densities. Therefore, the analytical information available to the Metro Council and other stakeholders was considerably reduced.

Regarding the first standard of recognizing uncertainty, Metro’s two draft Urban Growth Reports clearly acknowledge the range of uncertainty involved in making population projections. The Metro planning staff created three scenarios cited as Low, Moderate, and High growth, all of which are based on alternative plausible macroeconomics assumptions about national and world-wide “drivers.” We agree with Metro’s explanation of potential impacts of three scenarios that forecasters’ ability to predict the future is limited to the degree in which their economic models can predict the reaction of people to many future unknown economic factors. To mitigate the risk inherent in a single forecast, Metro planners developed the alternative growth scenarios noted above.

However, regarding our second standard of discussing the potential UGB outcomes associated with its Low, Medium, and High scenarios, Metro

did nothing. One opportunity to address potential outcomes occurred in August 1995 when the Metro Technical Advisory Committee (MTAC)<sup>4</sup> noted that when UGB decisions are made, they should be in the context of High and Low population growth forecasts. Then in September 1995, the Metro Policy Advisory Committee (MPAC), a charter-mandated committee made up of representatives from Metro's local government partners, asked Metro planning staff to evaluate the implications of the high growth forecasts. In October, 1995, Metro staff said at an MPAC meeting that they would inform MPAC of the implications of the High and Low forecasts. These implications were not later discussed in the subsequent draft Urban Growth Report. Moreover, we could not find documentation of any such discussions in the minutes of MPAC, MTAC, or Metro Council Meetings. Metro staff told us they did not evaluate the implications of the High growth forecast because interest at that time about increasing densities made MPAC's requests about higher population implications moot.

#### **Metro Staff Report Analysis Too Little and Too Late**

In an April 1996 Metro staff report, which recognized some uncertainty, planners presented several estimates for each variable, stated to be 10 percent<sup>5</sup> above and below the single estimate from the first draft Urban Growth Report issued the month before. The staff report's introduction noted that the preliminary estimate by Metro staff of a need to adjust the urban growth boundary to accommodate 4,447 homes would change substantially with very small changes in assumptions. In an effort which addressed the second standard of discussing outcomes, the report noted that an increase of 5 percent in each of the nine variables would call for a need to expand the boundary by 5,500 acres, while a decrease of 5 percent across the board would show that the current UGB had 4,000 acres more than needed. Metro staff presented this staff report for discussion at MTAC, MPAC, and Metro Council committee meetings.

As such, the Metro staff report met to some degree the elements of the first two standards that we have established. We believe, however, that the staff report analysis was too little and too late. Too little because the staff report's recognition of the range of plausible uncertainty was only

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<sup>4</sup> Although they generally have a stake in the outcome of policy decisions and are therefore not "peer review" groups, Metro has used two advisory committees of experts during the UGB planning process. These are MTAC and the Metro Business advisory Committee (formerly known as 2040 Means Business). See Appendix A, Glossary of Terms, for definitions of these groups.

<sup>5</sup> Several of the variables were already expressed as percentages, so when they were changed by plus or minus 10 percentage points, the actual percentage change was much higher.

limited to plus or minus 10 percent, a seemingly arbitrary value which could in fact be lower, or higher. Further, the staff report did not go on to present the numerous implications of even the plus or minus 10 percent variation, thereby not meeting the standard of discussing the outcomes and potential effects of several projections and forecasts. Too late because this staff report analysis was inserted into the UGB planning process after the Metro staff had published their work as single estimates in the March 1996 draft Urban Growth Report. We believe that timing is important, and the recognition of uncertainty must be the first analysis presented.

As a specific example of not recognizing a more plausible range of uncertainty in UGB planning, Metro planning staff had available to them the peer-reviewed Low, Moderate, and High growth population forecasts from their draft March 1996 Urban Growth Report. However, Metro staff did not use this information in their April 1996 staff report. The result of this choice was that the high (+10 percent) population presentation was relatively benign, just an increase of 22,400 homes, or 2,200 acres at 10 homes per acre. Had the staff report used the more plausible High Growth scenario from the draft UGB report, the increase would have been 136,600 households. At 10 households per acre, this increase would have meant that almost 14,000 acres needed to be added to the UGB to accommodate a high growth scenario.

In summary, the draft Urban Growth Report's analytical approach and forecasts appeared more credible than those cited in the staff report. Further, when the substantial difference in households between the two Metro documents is converted to acres, the draft Urban Growth Report translates to about 14,000 more acres, while the staff report is just 2,200 more acres. While we found no substantive discussion of effects of the potential increase in UGB acreage, the difference in projected outcomes between the two documents should have prompted a discussion of the policy implications of the more plausible, larger range of population forecasts.

**Greater  
Consensus  
Needed Among  
Stakeholders**

Metro has made many worthwhile attempts to attain greater consensus with regard to planning decisions. Accomplishments include outreach programs, citizen involvement panels, and numerous advisory committees. Additionally, one noteworthy *ad hoc* example involved a Councilor making a direct effort to bring affordable housing advocates to the discussion table with a homebuilders group. The issue centered on potential UGB expansion and affordable housing. While these "sides" had appeared to have little in common in finding a solution to an issue,

the Councilor's efforts resulted in better mutual understanding and a report on potential ways to bridge their known gap.

The need for soundly based data and consensus building is of paramount importance in the UGB decision process. There are ample signs, however, that Metro's planning process needs greater consensus among stakeholders. Our discussions with interested parties inside and outside of the formal Metro organization and our reading of the various committees and Metro Council records demonstrate that the Metro staff have strongly defended their analyses when different views on the accuracy of their projections, forecasts, and assumptions were brought forward. Some stakeholders view Metro's "tone at the top" as one that tries to prove the sources of such information as naive, misinformed, or misguided. This process of argumentative defense toward alternative projections, forecasts, and assumptions undermines the credibility of Metro, and lessens the probability that the best numbers and information on variables will be used in future Growth Reports and Metro Council policy decisions.

Some stakeholders said it was their perception that early in the 2040 Growth Concept planning process, the three standards we used as the basis of our evaluation were followed to a greater degree than they are now. These stakeholders said that as the planning and decision processes evolved, stakeholder input and importance seems to have declined considerably. In the process, they came to interpret Metro's responses to their positions as attacks and covert or direct attempts to discredit their information and point of view. We did not attempt to determine if these claims were correct. However, these reactions clearly suggest that Metro is losing opportunities to explore other potential outcomes of its positions and work toward consensus in various quarters. We found these concerns expressed across a wide spectrum of viewpoints about expanding the UGB — from those who favored no expansion to those who believed substantial expansion may be needed, and from groups and individuals in between.<sup>6</sup> Here are some of the examples we found.

#### **Zero Option Group**

The Zero Option Group, a coalition of planners, environmentalists, and others, questioned the Executive Officer's announcements on the need for UGB expansion. They also questioned projected outcomes stated in the Draft 1996 Urban Growth Report, which at the time assumed the need

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<sup>6</sup> Appendix B contains summaries of the viewpoints expressed at the opposite ends of the spectrum, together with their assessments of Metro's 17-Step UGB planning process. Their assessments summarize what the parties believe are questionable Metro UGB planning assumptions. Appendix B also includes Metro's counterpoints.

for a UGB expansion of about 4,000 acres. The group believed Metro staff and the Metro Council needed more basis for estimates and assumptions for redevelopment rate, infill rate, lot sizes, ramp-up, and underbuild. The group developed data that it felt documented the capacity of the current UGB to absorb the population and job increases for up to the next 20 years. Consequently, the group believed Metro should not immediately expand the UGB, at least not until local jurisdictions have had time to implement the Functional Plan. A Metro planning official responded to the group's position with correspondence to Metro's Policy Advisory Committee in which he stated his belief that the group's position "...is flawed and that it is based on unrealistically rosy assumptions." As a related example, members expressed concerns that Metro's planning processes were viewed as setting aside their months of effort in establishing fact-based positions. They indicated concern that Metro's process had become one of moving toward a predetermined outcome without a solid fact base.

Members told us it was their perception that Metro officials made an effort to have them distanced from the debate about the UGB expansion. One member said that when he gave presentations to Metro advisory groups in which he made the case that Metro should not immediately expand the UGB, the Metro Executive Officer contacted his employer, another governmental agency, and made it clear that he was not to be a staunch advocate for the group's position and that further presentations by him should be discouraged.

The Metro Executive Officer stated his view on this event. He stated that several members of the Metro Council asked him to clarify whether this and other individuals were representing their agencies' positions on UGB expansion or whether they were speaking as individuals and members of the "Zero Option Group." In this particular case, he called the agency head and was told that the agency had no position on UGB expansion. The Executive Officer stated that he requested that the employee in question be instructed to clarify at his presentations whether he was presenting the position of his agency or that of his group.

#### **Portland State University Study Group**

At the request of a Metro Councilor who sponsored the work, three Portland State University professors from the Center for Urban Studies analyzed the potential impacts of the UGB size on the area's housing markets. Their study showed that Metro was not doing sensitivity analysis for such critical factors as redevelopment rate, infill rate, lot sizes, ramp-up, and underbuild variables — factors that had large implications



on whether to expand the UGB. They said that, based on earlier understandings with the Metro planning staff, they expected that after the study was completed Metro would acknowledge it and work jointly on issues of common ground. However, their perception was that Metro officials attacked their independence and credibility and dismissed the study as biased and of little value.

#### **Real Estate and Economic Consultants**

In 1995 the Executive Officer appointed a business-oriented "2040 Means Business Committee" to examine Metro's 2040 Growth Concept direction. The Committee hired real estate and economic consultants to study related implications. The consultants' work raised issues about potentially negative market-related ramifications of growth planning. The principals of the real estate consulting firm hired to conduct the study said Metro staff tried to remove the negative implications from their draft report. They stated Metro staff did this by omitting certain key conclusions addressing such issues as problematic housing affordability and implications of the 2040 Growth Concept on industrial and commercial markets. The resulting Metro report, they said, was not a balanced or complete presentation of their work. For example, they did not think that Metro's final report on their work gave ample consideration to a finding that with a "tight" UGB at least 60,000 households in the UGB may need housing subsidies. A member of an economics consulting firm hired as part of the same effort voiced similar concerns. He stated that, as the firm was drafting its report, Metro staff made direct efforts to remove negative implications from his draft report. Both consultants believed their work documented potentially problematic and uncertain aspects of the 2040 Growth Concept that need to be addressed.

#### **Home Builders Association**

The Homebuilders Association of Metropolitan Portland was one example of an interest group voicing frustration about the degree to which it felt Metro did not recognize or consider the group's input. On several occasions, the Association informed Metro that the agency was overlooking critical data on the market's ability to absorb the 2040 Growth Concept and related effects on home affordability and other factors. In a November 1995 letter to Metro's Policy Advisory Committee and the Metro Council, a Home Builders Association official stated his concerns about the credibility of Metro's UGB planning processes. He stated that Metro must not base UGB decisions on ideology. The challenge facing Metro is not about moving the UGB.

The challenge is to more realistically determine how much the region will grow, how much land that will involve, and to what degree the populace will embrace the projected densities. The UGB size needs to be determined in response to such issues, not the other way around. He also stated a widely held view that Metro first decided how big the region should be and then it worked backwards from that arbitrary line toward density and development targets. He summarized his point by stating "This is not planning, it's math."

### **Metro Policy Advisory Committee**

The Metro Policy Advisory Committee (MPAC), a charter-mandated committee made up of representatives from Metro's local government partners, has also been a forum in which issues regarding the credibility of the UGB decision process have been raised. Although they have consistently voted in favor of the 2040 Growth Concept, some advisory committee members have also raised concerns about aspects of the planning process and about being rushed into decisions without a firm factual basis. Here are some examples, taken from committee records.

- At a January 1996 meeting, one member stated that although the Committee was working hard to develop credibility for the planning process, Metro's changes to previous positions were viewed as damaging to the credibility of Metro's planning process.
- At a June 1996 meeting, members expressed concerns about Metro's basic lack of criteria on what constitutes "fair share" allotments of housing and employment to be absorbed by each jurisdiction.
- At a November 1995 letter to MPAC, the mayor of one area city stated his concerns about MPAC potentially agreeing to a limited UGB expansion. He stated that "Metro is basing the proposal to add 4,000 to 9,000 acres to the UGB upon the accuracy of their projections for the entire region. Based on our own analysis....I don't see how these figures are an accurate representation of what is really do-able over the next 20 years."
- At an October 1995 MPAC meeting, one member addressed the issue of changing zoning maps to implement the Metro 2040 Growth Concept. She stated her view that certain vacant lands listed on the Metro maps were inaccurate. Essentially, she found that some lands considered vacant were already developed. A Metro planner responded by stating that future refinements would address such issues.

**Similar Concerns Identified By Portland State University Leadership Symposium**

Coincidental to our audit work and report, a 1996 Portland State University Annual Leadership Symposium highlighted similar issues. The issues identified at the conference noted the need for a more credible planning process that essentially relates to the planning standards we have established. Presented by the University's Institute of Portland Metropolitan Studies, the conference identified a number of critical issues related to Metro's 2040 Growth Concept implementation, among them the following:

- The public does not accurately understand the 2040 Growth Concept or its real impacts. Polls found that about half of residents want to keep the current UGB and half do not want to increase population and housing densities — mutually exclusive options. The overall quality of the public discussion of the 2040 Growth Concept is too simplistic and emotional. People have not yet faced and resolved for themselves the fact that they cannot have everything they want.
- There is confusion about the numbers regarding the 2040 Growth Concept. For example, there is basic mistrust and a wide range of conflicting views and "numbers" on how much or little UGB expansion is needed, how growth allocations to local governments are made, and questionable population and employment projections.
- The credibility of government institutions is generally low. The credibility of the 2040 Growth Concept, no matter how well-intentioned, is damaged when Metro and local officials raise issues about the practicality of the 2040 Growth Concept and such issues are unresolved. Basic consensus on the 2040 Growth Concept is lacking at many levels.

The issues highlighted at the conference over one year ago are even more timely and critical today. The conference highlighted some solutions to help resolve these issues. Solutions included: keeping politics out of research, engaging stakeholders in a more meaningful process, improving the quality of dialogue, and improving the conduct of meetings and discussions to reduce the "us versus them" perceptions that may be generated.

**Recent Range of UGB Expansion Estimates Between 3,000 and 10,000 Acres** Metro's process for deciding on a UGB expansion is nearing a deadline of December 1997. Recent meetings of the Metro Council and other groups have shown that the proponents of little or no expansion have moved their estimate from no increase up to an expansion of 3,000 acres. Metro planning staff view this as a "bitter pill" for them to swallow. Conversely, the proponents of a more market-based expansion have used 10,000 acres as a number they find acceptable. The Metro Executive Officer estimated a similar expansion over the past two years. This relatively small range and an apparent agreement on it may lead to a conclusion that the UGB planning process has worked well.

We doubt that this is the case. Without a clearer recognition of the level of uncertainty inherent in each projection and cumulative results, and without a fuller discussion of the implications of plausible outcomes, we do not know if the current numbers of 3,000 to 10,000 acres are the result of compromise or of satisfaction with the analytical process.

In the next chapter, we make recommendations on how Metro could go about making changes that would strengthen future UGB decision processes.



## Chapter 4. Conclusions and Recommendations

We found widespread and not so subtle disquiet about the basic trustworthiness of Metro's planning process and procedures on UGB decisions. Stakeholders still voice such views. We are well aware that a high degree of controversy will likely continue as Metro makes difficult UGB choices. However, we believe Metro can significantly change critics' deeply held views that reflected dissatisfaction, distrust, and disbelief connected with Metro's UGB decisions. Decisions of such magnitude cannot be all things to all people. However, Metro must proactively address such concerns if it is to achieve its responsibilities of effectively planning and implementing the 2040 Growth Concept. Based on our examination of information Metro produced to support a UGB decision and our broader review of Metro's planning processes and decisions, we believe the range of such opinions can be narrowed and discord can be muted through a more plausible and open decision-making process.

Improvements in the process regarding the formulation and review of projections, forecasts, and assumptions are possible. These would aid in making more open the UGB decision process, and would help bring in known expertise available to determine together a best number for the decision.

Metro's required 20-year time frame for forecasting is so far in the future that any estimate is subject to "valid" alternatives. Two Metro planning staff accurately summarized this uncertainty. They independently stated that the basic but little-understood reality is that while Metro puts tremendous effort and resources into growth management planning, essentially all of Metro's UGB planning comes down to a bottom line that is about plus or minus 10,000 acres anyhow.

Precisely predicting UGB-related outcomes is simply not possible. Their assertion was confirmed in our analysis of potential cumulative impacts of changed variables. Even a modification to one variable can have a major effect on the "bottom line" determination of whether to expand the UGB and if so, by how much. Taken together, modification of critical variables can change the results from concluding that the current UGB has a "surplus" of about 10,000 acres to a "shortfall" of about 13,000 acres.

Therefore, a critical issue for the Metro Planning staff is to establish and operate in a process that produces the data required by the Council while it also diminishes the debate about the actual projections and forecasts. Such commonly-accepted data would form a basis for Council decisions on Growth Management issues and would enhance the trust between constituent governments, interest groups, the general public, and Metro.

We believe that the Executive Officer, staff and Metro Council can enhance the credibility of the growth management planning process. As general recommendations, Metro should enhance the credibility of its growth management planning by proactively:

- Recognizing the high degree of uncertainty inherent in all UGB planning and decisions. Metro should present data that support the planning process in such a way that the inherent uncertainty is fully disclosed and clearly visible and understood by all stakeholders.
- Presenting the positives and negatives of choosing one estimate over another. Stakeholders should clearly understand all upsides and downsides of decisions. Discuss all possible implications of several forecasts, projections, or estimates in the process on the UGB decision. Metro staff and Council should lead the discussion about the implication of all possible outcomes. All discussions should include a full presentation of all assumed and potential impacts.
- Seeking consensus among its many stakeholders on a single estimate that allows informed policy decision-making. Strengthen the UGB decision process so as to capitalize on the understanding available from the prior two recommendations in order to reach consensus on each variable. Invite all stakeholders. Listen to and value their input. Recognize their positions. Work with them with the understanding among all stakeholders that eventually the Metro Council policy decision will come down to one number. The Metro Council should clearly advertise this as a policy decision, and give full disclosure on the full range of implications of its policy decisions.

To enhance its credibility in UGB planning and decision-making, Metro needs to implement the following specific recommendations:

**Recommendation 1:** To better clarify the supporting analyses for the data needed in the UGB decision process and related performance measures, the Executive Officer should:

- Establish one or more peer review groups to work with Metro planning staff in verifying supporting evidence and analytical procedures which support work on the “17 Step” planning process and related efforts on Performance Measures. At a minimum, these groups should review capacity data sources, assumptions, methodologies and analyses. The peer review groups could be different for each variable, or they could review similar types of data. The groups should include people with a high degree of technical

abilities, and recognized experts in geographic information systems, data collection, land use, and economics. They should be independent and not identified with any group or individual having a vested interest in the outcome of policy decisions:

- Publish the results of these reviews to stakeholders and stakeholder groups, and to the general public as part of the citizen involvement process.

**Recommendation 2:** When there is a range of accepted uncertainty in either the evidence or in the projections based on the evidence, it should be clearly and fully discussed. Metro should widely disseminate analyses, conclusions, and recommendations to stakeholders and the general public.

**Recommendation 3:** Projections, forecasts, and assumptions that contain a range of possible outcomes should be discussed in terms of the potential outcomes for UGB decisions. Again Metro should widely disseminate the record of these discussions throughout the stakeholder community, the general public, and during the citizen involvement process.

**Recommendation 4:** The Executive Officer, staff, and Metro Council should use the results of the process that evolves from following these recommendations to better establish and ensure consensus on the individual variables and the overall need, if any, for a change in the UGB and for consideration of Functional Plan Performance Measures. Metro's development of the Performance Measures is an important part of this process of enhanced credibility because the measures will eventually form a "feedback loop" which will document how and how well its growth management planning processes are working and the specific effects of policy decisions.

**Recommendation 5:** As part of the total overarching effort related to the above recommendations, the Executive Officer, in consultation with the Metro Council, should identify all potential stakeholders who need to know these details. Metro's Executive Officer, staff, and Council should work consistently and continually with these stakeholders and keep them fully informed about the data produced and outcomes associated with the above steps. Metro should stay abreast of stakeholder activities to determine ways to continually improve an open stakeholder involvement process.

We believe that implementing the recommendations of this report will help achieve needed improvements. The overriding objectives are that the process become more open to the stakeholders, reflect more accurately the



nature of the data being used, and enable consensus to be more easily reached on the UGB decision.

## Response to the Report

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### Auditor's Note:

The following five pages present the Executive Officer's response to our report. While in his response he accepts our recommendations without qualification, he also makes several statements which we find problematic. Specifically, he states that :

- "The diverse data, opinions and analysis from this process and debate provides the Metro Council the best information available because ultimately it is a policy decision requiring their vote." This statement completely misses the issues presented in our report. We state repeatedly that all such policy decisions must come down to one number--on this there is full agreement. However, to suggest that the Council has been presented with all of the best possible information for its decisions is very questionable.
- "...in this process there are those who feel they are winners and those who feel they are losers--an uncomfortable truth that all of the information sharing in the world cannot change or mitigate." We disagree with this view. With the acceptance of the recommendations and implementation of the standards we have developed, we have reason to believe that such information sharing can indeed narrow the gap between those who "feel they are winners or losers" and enhance the credibility of Metro's UGB planning processes.
- "The audit focuses on the old 1996 draft Urban Growth Report, rather than the more recent, draft May 1997, version." This also is not an accurate statement. Based on our review of both the 1996 and 1997 draft Urban Growth Reports and discussions with Metro planning officials and others who are very familiar with the documents, we find there is very little if any difference between the processes that produced them. The focus of our review was those processes. Moreover, we found no evidence that any substantial part of our recommendations were included as part of either draft Urban Growth Reports. The process of gathering evidence, recognizing its limitations, analyzing the possible outcomes of projecting uncertain data, and using the alternative outcomes to facilitate understanding is the focus of the Metro Auditor's review--items that are still lacking in Metro's process.



**METRO**

Date: September 25, 1997

To: Alexis Dow, CPA, Metro Auditor

From: Mike Burton, Executive Officer *W. Burton*

Re: Response to the Audit of UGB Processes

Thank you for the opportunity to review and respond to the audit of Metro's urban growth boundary process. You state often within the text of the audit how comprehensive Metro's planning efforts have been, and how difficult it is to predict the future with any certainty. You also state, "that Metro's UGB planning processes are a complex combination of art, science, professional judgment and policy determinations." I think you have stated this perfectly. Simply put, forecasting is not an exact science. Opinions and analyses are always up for debate. This is what makes the process so difficult.

As the audit points out, diverse trends, projections, assumptions, and analysis have been provided with stakeholders presenting different viewpoints and projecting different versions of the future. The report emphasizes the conflict that naturally arises during this kind of process, particularly when professional opinions from all sides are involved. As Metro's Executive Officer, I recruited many of these different organizations' involvement. So I guess I asked for it! And I am pleased about the current public UGB debate because it means people are concerned about critical issues impacting the entire region.

The diverse data, opinions and analyses from this process and debate provides the Metro Council the best information available because ultimately it is a policy decision requiring their vote. I think the Council deserves credit for its complex, inclusive policy-making process. It is faced with tremendous pressure from all groups and must make the best decision possible.

The audit emphasizes consensus in this decision-making process. While it is a goal I believe we all share, in this process there are those who feel they are winners and those who feel they are losers -- an uncomfortable truth that all the information sharing in the world cannot change or mitigate.

This audit focuses on the old 1996 draft Urban Growth Report, rather than the more recent, draft May 1997, version. The Metro Council did not formally adopt the 1996 draft Urban Growth Report for many of the same reasons outlined in the audit. Due to the complexity of this UGB decision, and the fact that so many pieces of the "17-Step" process and the "Nine Variables" were debatable, the Metro Council directed staff to continue refining the information and report back to the Council with those findings the following year. Because the Council did not believe they had sufficient information to make a decision, they requested that staff continue refining the information and analysis on the Urban Growth Report, speak to additional stakeholders, and attempt to provide an even better basis for the Council's decision-making process.

I concur with all the recommendations made in the audit reviewing Metro's urban growth boundary process. Because this is the first time that Metro, or any metropolitan area, has been through this process, all input on how to improve upon the process is welcome and warranted. The audit recommendations will be helpful to staff and the Metro Council in the completion of drafting Performance Measures and reviewing urban growth boundary capacity in the future.

Again, we recognize that this is an evolving process and a work-in-progress. As it has unfolded, we have learned a lot and continued to make improvements.

**Recommendation 1: To better clarify the supporting analyses for the data needed in the UGB decision process and related performance measures, the Executive Officer should:**

**Establish one or more peer review groups to work with Metro planning staff in verifying supporting evidence and analytical procedures which support work on the "17 Step" planning process and related efforts on Performance Measures....**

**Publish the results of these reviews to stakeholders and stakeholder groups, and to the general public as part of the citizen involvement process.**

I concur that peer review would enhance Metro's analyses. Four review groups were used during the process to date including:

A "Users Group" - land use and transportation planners -- were initially used to review the basic growth data for accuracy.

Metro Economic Advisory Council - private and public economists reviewed the job, household and population forecasts from throughout the region.

Metro Technical Advisory Committee - comprised of local land use planners as well as special interest advocates such as the Home Builders Association, State Department of Land Conservation and Development, Audubon, and several quasi-public utilities.

2040 Means Business Committee/Business Advisory Council - representing the development, homebuilding, financial, high tech and business community, these groups were formed to make recommendations to the Executive Officer.

The diverse professional perspectives and broad knowledge base provided by these four groups has been very useful. However, I recognize these are different from the peer review groups recommended. Therefore, in addition, three new peer review groups are being considered:

- a local group to review additional redevelopment measurement analysis
- a national peer review group to review redevelopment analysis
- a national peer review group to review Performance Measures

In the upcoming FY 1998-99 budget, I will request additional funding from the Metro Council to make this additional peer review available and to cover the staff time required to facilitate these reviews.

**Recommendation 2: When there is a range of accepted uncertainty in either the evidence or in the projections based on the evidence, it should be clearly and fully discussed. Metro should widely disseminate analyses, conclusions, and recommendations to stakeholders and the general public.**

I concur with this recommendation. Public involvement is critical to the success of Metro's planning process. Along with review of peer, technical, business, and advisory groups, Metro has several strategies for involving and informing stakeholders and the public about upcoming policy decisions. These strategies include everything from outright advertising in newspapers and on the radio to individual mailings to targeted households. Scientific surveys are used to test public opinion on issues that are being considered by the Metro Council. The Growth Management Department maintains a mailing list of over 65,000 individuals in the region. These households are sent a newsletter at least every six months which attempt to cover all impending decisions and provide the time, date, and location of upcoming open houses, public hearings, and Council decision-making points.

New strategies have been implemented to make access to information a 24-hour a day Metro service. Metro's Growth Management Hotline is running round the clock to provide record messages to the public about upcoming events and activities. Callers may also leave messages on the hotline and all calls are returned as requested. In FY 1995-96, Growth Management Services invested about \$20,000 to make the World Wide Web more user-friendly and more informative about upcoming growth management decisions.

Regular media coverage continues to be the most cost-effective and most utilized strategy for informing the public about upcoming policy decisions. Metro staff has placed stories reporting upcoming Metro activities in television stories, radio spots, newspapers, community, neighborhood, civic, business and special interest newsletters throughout the region. Special school projects have been conducted to involve children, and by extension, their parents in discussions with Metro about the future of this region and the decisions being made by the Metro Council.

**Recommendation 3: Projections, forecasts, and assumptions that contain a range of possible outcomes should be discussed in terms of the potential outcomes for UGB decisions. Again Metro should widely disseminate the record of these discussions throughout the stakeholder community, the general public, and during the citizen involvement process.**

I concur with this recommendation for the reasons cited in #2 above.

**Recommendation 4: The Executive Officer, staff, and Metro Council should use the results of the process that evolves from following these recommendations to better establish and ensure consensus on the individual variables and the overall need, if any, for a change in the UGB and for consideration of Functional Plan Performance Measures. Metro's development of the Performance Measures is an important part of this process of enhanced credibility because other measures will eventually form a "feedback loop" which will document how and how well its growth management planning processes are working and the specific effects of policy decisions.**

I concur with this recommendation. The development of the Performance Measures, as required in the adopted Urban Growth Management Functional Plan, assures that the Metro Council and the public will have better tools for evaluating the accuracy of the impact of the Metro Council's policy decisions. This is an important step in the process of improving the degree of certainty about the variables that the Metro Council votes on in the Urban Growth Report.

Analysis of some of the "Nine Variables" is more comprehensive than others. By establishing Performance Measures, the Metro Council will have better information about historical trends which should give forecasting decisions greater accuracy.

**Recommendation 5: As part of the total overarching effort related to the above recommendations, the Executive Officer, in consultation with the Metro Council, should identify all potential stakeholders who need to know these details. Metro's Executive Officer, staff, and Council should work consistently and continually with these stakeholders and keep them fully informed about the data produced and outcomes associated with the above steps. Metro should stay abreast of stakeholder activities to determine ways to continually improve an open and honest stakeholder involvement process.**

I concur that Metro should continue to strive to identify and involve all stakeholders in decision-making processes. Detailed suggestions about how to identify additional stakeholder groups or ways to further disseminate information to the public would be appreciated.

See above answer to recommendation 3.



## Glossary of Terms

**2040 Growth Concept:** Adopted by the Metro Council in December 1994 as a resolution and in December 1995 as an ordinance. The Growth concept is not directly binding on cities and counties of the region. However, it does direct Metro's planning policies and assumptions. It is also not a plan, but rather a concept for how the region should manage its growth during the next 50 years. The concept states the preferred form of the regional growth and development is a compact urban form. The concept considers where and how much the UGB should be expanded, what densities should characterize different areas, and which areas should be protected as open space. The Growth Concept is designed to accommodate approximately 720,000 additional residents and 350,000 additional jobs. The total population served within the 2040 Growth Concept is approximately 1.8 million residents within the Metro boundary. Standards within the 2040 Growth Concept include:

- Use compact development to use land more efficiently, focusing on downtowns, large and medium-sized population centers around the region, and major transit routes.
- Designate land reserves outside the UGB for additional urban development.
- Identify open spaces within the UGB to protect natural areas, parks, streams, and farmland.
- Promote a transportation system within the region that accommodates alternative ways to travel, such as bicycles, walking, and mass transit, as well as cars.
- Work with neighboring cities just outside the UGB on growth issues.
- Encourage a range of housing types to promote diverse housing options.

**2040 Means Business Committee:** A diverse group of Portland area business people who reflect the development and finance community. The Metro Executive Officer appointed the committee in mid-1995. He viewed them as a group that will ultimately make the 2040 Concept work on the ground. The Executive Officer's charge to the committee was to examine the adopted 2040 Growth Concept, identify obstacles to implementing 2040, and to recommend solutions to overcoming those obstacles. The committee identified public awareness, market conditions, and regulatory reform as the primary issues associated with 2040 Concept implementation. In 1997 the group was reconstituted as the Business Advisory Committee.

**Buildable Land:** Vacant land that is capable of being developed and generally is free of physically limiting features or legal restrictions. It is not designated as an open space or other resource lands.

**Farm Use Assessment Lands:** One of the Urban Growth Report's nine policy variables that identifies a total of 11,800 acres of land inside the UGB that are classified for tax purposes as agricultural use. For planning purposes, state law requires that all such land be counted as vacant.

**Gross-to-Net:** One of the Urban Growth Report's nine policy variables that subtracts from available UGB acreage lands to be used for certain infrastructure-type uses, such as streets, parks, churches, and schools.

## Appendix A

**Housing Needs Analysis:** A report required by the State. It is a formal estimate of the types and quantities of housing needed in the region over a 20-year period. It also addresses affordable housing and projected land prices.

**Infill:** One of the Urban Growth Report's nine policy variables that describes more efficient use of developed land. The variable estimates future new development on a parcel or parcels of less than one contiguous acre of land located within the UGB.

**Land Conservation and Development Commission (LCDC):** The 7-member directorship of Oregon's statewide planning program. The LCDC is responsible for approving comprehensive land use plans promulgating regulations for each of the statewide planning goals.

**Metro Council:** A governing body composed of 7 members elected from districts throughout the metropolitan region (urban areas of Clackamas, Multnomah and Washington counties). The Council legislates Metro policies, including growth management and transportation plans, projects and programs.

**Metro Charter:** The 1992 legislation as provided by the voters that organized Metro and established that the region's growth planning process was to be Metro's primary responsibility.

**Metro Policy Advisory Committee (MPAC):** An independent regional advisory committee established by Metro Charter. MPAC is mostly composed of local elected officials from within the Metro boundary, but it also includes representatives from Clark County, WA and the State of Oregon. MPAC is responsible for recommending to the Metro Council adoption of or amendment to any element of the Charter-mandated Regional Framework Plan.

**Metro Technical Advisory Committee (MTAC):** A group composed primarily of technical staff from government agencies participating in Metro's land use planning activities. MTAC also includes others who represent various interests, including the development community, utilities, and environmental interests. MTAC serves as a technical review committee for MPAC.

**Oregon Statewide Planning Goals:** The 19 goals that provide a foundation for the state's land use planning program. The planning goals can be grouped into four broad categories: land use, resource management, economic development, and citizen involvement. Metro's and other locally adopted comprehensive plans must be consistent with statewide planning goals.

**Planning Activities:** Planning activities cited in the RUGGOs are not binding on cities and counties of the region. They do contain implementation ideas for future study in various stages of development that may or may not lead to RUGGO amendments, new functional plans, functional plan amendments, or regional framework plan elements. The RUGGOs are binding on Metro and prescribe certain processes relating to how Metro coordinates with local jurisdictions in the region. Planning activities for any given year will be subject to

Metro Executive Officer budget recommendations and Metro Council budget adoption.

***Population and Jobs Forecast:*** One of the Urban Growth Report's nine policy variables that forecasts the number of households and jobs that will have to be accommodated within the UGB over the next 20 years.

***Ramp-Up:*** One of the Urban Growth Report's nine policy variables that estimates the amount of time needed by local jurisdictions to phase-in Metro's 2040 Growth Concept densities. This factor adjusts for growth capacity lost during that period.

***Redevelopment:*** One of the Urban Growth Report's nine policy variables that estimates additional housing and employment capacity from new construction on land parcels already considered developed. Metro's estimate of redevelopment capacity is based on an estimate of the available stock of redevelopable land, as well as measurements of actual redevelopment for 1995 and 1996.

***Regional Framework Plan:*** Commonly referred to as "2040 Framework," this plan is required by the Metro Charter that was approved by the voters in 1992. The plan is much more specific than the Region 2040 Growth concept. The Framework Plan must address specific growth management and land use planning issues, including transportation, with the consultation and advice of MPAC. According to the Metro Charter, the Council must adopt the Framework Plan by December 1997. To encourage regional uniformity, the Framework Plan will also contain model terminology, standards and procedures for local land use decision making that may be adopted by local governments.

***Regional Functional Plan:*** A specific purpose multi-jurisdictional plan for an area or activity having significant regional importance. When functional plans are adopted, all cities and counties in the Metro region are required to make changes to their comprehensive plans and implementing ordinances. The Metro Council has adopted several functional plans, including the Solid Waste Management Plan, the Regional Transportation Plan, and the Urban Growth Management Functional Plan. The Urban Growth Management Functional Plan addresses such issues as accommodation of projected regional population and job growth, regional parking management, water quality conservation, retail and industrial employment areas, and accessibility on the regional transportation system. All cities and counties in the Metro region shall adopt changes to local comprehensive plans and zoning codes to address these issues by February 1999, two years after the Metro Council's adoption of the Functional Plan ordinance.

***Regional Urban Growth Goals and Objectives (RUGGOs):*** Regional land-use goals and objectives that are required by state law. RUGGOs are essentially an urban growth policy framework representing the starting point for the agency's long-range regional planning program.

***Urban Growth Boundary (UGB):*** The line that surrounds the urban area of the three-county Portland region and separates urban from rural land. The UGB identifies urban and urbanizable lands needed during the 20-year planning period to be planned and serviced to

## Appendix A

support urban development densities. The UGB currently contains about 233,000 acres, or 364 square miles and is under Metro's jurisdiction. The UGB is Metro's primary tool for managing growth.

**Urban Growth Report:** Metro's comprehensive study that is designed as a primary aid to the Metro Council in determining how quickly land is being used within the UGB, how likely it will be used in the future, and the extent to which UGB expansion will be needed. Metro's draft 1996 Urban Growth Report itemized the "17-Step" Growth Management Planning process. It highlights the "Nine Variables" of the 17-Step process and the related assumptions applied. Upon the analysis of the variables rests the basis for UGB expansion decisions.

**Unbuildable Land:** One of the Urban Growth Report's nine policy variables that itemizes acreage that is basically too difficult to develop due to certain constraints, such as excessive slopes.

**Underbuild:** One of the Urban Growth Report's nine policy variables that is defined as the difference between the theoretical comprehensive plan single family residential density and the actual density built.

**Vacant Lands Inventory:** As defined by Metro's Vacant Lands Atlas, the database used to produce the atlas consists of undeveloped lands inside the UGB. Vacant Lands Inventory data was produced by combining property tax assessment records, aerial photography and building permits. The database identifies undeveloped tax lots of any size and partially developed tax lots with 1/2 acre or more of vacant land remaining. These maps indicate undeveloped lands. No conclusions regarding capability or availability for development should be construed. These records are updated in the fall of each year and can become outdated, especially in rapidly developing parts of the region.

**Zell Factor:** One of the Urban Growth Report's nine policy variables that is named after a private real estate appraisal firm that conducted a study of developable parcels in the UGB. This variable reflects Zell's consideration of difficult to develop parcels included in Metro's vacant lands inventory. The obstacles include slopes between 7 and 25 percent, poor access, small lot size, and existing development.

**Zero Option Group:** An assemblage of some Metro area city and county planners as well as interested parties from the area transportation agency, environmental groups, and other organizations. Metro officials view the group as knowledgeable professionals in the planning field who have a stated objective of minimizing a UGB expansion. The group was formed in mid-1995 as part of a response to the Metro Executive Officer's announcement that the UGB should be expanded by 4,000 to 9,000 acres as soon as possible. The group felt its documentation showed that such a decision could be delayed because Metro assumptions were faulty and other factors, such as implementation of the Functional Plan, should play out prior to an immediate expansion.

## Criticisms Of Metro's "17-Step" Planning Process and Metro's Responses

The following pages describe criticisms of Metro's "17-Step" process for calculating Urban Growth Boundary (UGB) capacity. For each step, we list the criticism immediately followed by the response from Metro's Growth Management Services Department in italics.

Criticisms basically come from two groups:

- The "zero growth" group that favors a zero, very limited, or delayed UGB expansion, at least until local jurisdictions have time to implement the Metro Functional Plan; and
- The "market-oriented" group that favors an immediate UGB expansion to accommodate what it believes are the requirements of certain market forces.

Criticisms from the "zero-growth" perspective are numbered beginning with "ZG." Those from the "market-oriented" perspective begin with "MO."

This appendix is not intended to provide a comprehensive treatment of UGB issues but to illustrate the types of issues involved in debating Metro's UGB planning assumptions and processes.

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### **Step 1: Determine the total acres inside the current UGB--233,000 acres is a given**

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ZG: no critique

MO: no critique

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### **Step 2: Subtract developed lands, water bodies and existing parks and streets because these constitute unbuildable acres**

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ZG: no critique

MO-1: no critique

## Appendix B

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### Step 3: Subtract already platted lots because these areas will be developed within the planning period

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ZG: no critique

MO-1: Metro identified and subtracted platted single-family lots of 3/8 acre or less. Metro viewed acreage as not likely to develop by 2015 but Metro has no historical or factual basis for the assumption.

*This step was included to address small (3/8 acre and smaller) parcels which seemed unlikely candidates for re-platting. This is a conservative assumption, as many of these small lots can potentially be partitioned under existing zoning.*

### Step 4: Subtract steep slopes, floodplains, wetlands and land along streams because these areas are basically unbuildable

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ZG-1: Metro's draft 1996 Urban Growth Report notes that recent local inventory work may add back some of this land as buildable. This is critical factor that Metro does not address. If unbuildable lands are built on, Metro should (but does not) account for this in the capacity number for land inside the UGB.

*The draft 1997 Urban Growth Report accounts for existing development rights on unbuildable land.*

MO-1: Based on Zell report and other on-the-ground perspectives, there is a strong likelihood that significant amounts of lands marked for protection by locals fail to show up as protected on Metro maps.

*Only physically constrained lands, according to predetermined criteria, are subtracted in this step. Any land that is shown in Comprehensive Plans as open space, however, is considered committed. Evidence to date indicates that we are more likely to overestimate environmentally constrained lands.*

MO-2: Metro has no basis to have any confidence in the wetland delineation methodology it used to inventory UGB lands.

*Metro delineates wetlands starting with the National Wetlands Inventory and combining those data with jurisdictional defined wetlands and jurisdictional and special interest review. Wetlands are currently being reviewed in great detail by local jurisdictions as part of Functional Plan Title 3 mapping. We have no evidence of any parcel being made completely unusable by wetland protection unless the entire parcel was covered by wetlands.*

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**Step 5: Subtract land for future schools, parks, etc. ("Gross-to-Net") because these areas are not buildable for future homes and other development**

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ZG-1: Metro used a high "Gross-to-Net" factor for streets, especially when considering "skinny streets" and other compact development design concepts. Therefore, Metro overlooked some available acreage.

*Land consumption rates for schools, parks, etc. remain higher than our 2040 targets, although land consumption for streets was less than expected. We projected 25.8 percent for streets and parks; actual has been 23.2 percent, or about 90 percent of our assumed rate. Uncertainties on this matter remain. Given all the uncertainties we will recommend no change to our original assumption.*

ZG-2: Studies of local government capacity showed little need for future facilities inside the UGB but Metro included such estimates, thereby giving the wrong appearance of reducing UGB capacity.

*This adjustment factor applied only to vacant land, which would indeed need new public facilities. We are not aware of excess capacity except water and sewers, which are not space consuming capital goods. We assume that we need proportional increases for parks and schools. At the policy level the Metro Council has debated this and opted for proportional growth.*

MO-1: Metro has no factual basis to assume future land requirements for schools, etc. (per student, per capita) will be same as metropolitan average, although most development is on urban fringe.

*We contend the most factual basis for an assumption about the entire region is an average based on the entire region. With respect to schools, the acreage uses vary tremendously within the region, and many recently built schools are as dense as older school sites. Metro Council, however, directed staff to increase the future land requirement for schools and parks, which is reflected in the draft 1997 of the Urban Growth Report.*

MO-2: Metro has no factual basis to assume constant school acres per student as Metro average.

*The ratio is a simple fact taken from the total school acreage divided by total student enrollment.*

MO-3: Metro has no factual basis to assume constant streets/acreage ratio.

*The study we used to establish this was based on recent subdivisions all over the region. The most recent data in the Urban Growth Baseline Data indicate land used*

## Appendix B

*for streets is less than our assumption. However, these data only cover one year and we wanted to be conservative.*

MO-4: Metro has no factual basis to assume constant park/household ratio.

*Our most recent data from the Baseline Urban Growth Data report indicate that the region is using land for parks at a faster rate than predicted in the draft Urban Growth Reports. Metro Council directed staff in Resolution No. 96-2392B to increase the future land requirement for parks by 450 acres, an increase of 31 percent.*

MO-5: Current standards allow for 14.4 acres of parks per 1,000 residents — or 6,500 acres now. However, Metro's draft 1996 Urban Growth Report projects substantially higher densities and need for parks but allows for only 2,450 park/open space acres within UGB of 2015. There is no basis for Metro to assume that the public accept fewer acres of parks.

*The draft Urban Growth Reports do not prohibit more land than forecast being dedicated for parks, it is just our forecast of the amount that will probably be set aside. The 2,450 acres has been increased to 2,900 acres. Also, all of the 16,000 acres of unbuildable lands could be added to the supply of park land, as much of it is suitable for open space and recreational uses. And, land that is immediately adjacent to the UGB is functional park land for urban residents. Indications are that with these changes and Metro's open space program, we will have more than 14.4 acres per 1,000 in the future.*

MO-6: Suburban services will have to be more dense to accommodate desired facilities. Metro has no basis to assume public and market will accept the concept — not based on fact or history.

*We are providing urban services and we have a wealth of historical data supporting our density assumptions. Moreover, given our intentions on infrastructure standards, road building and land availability, market conditions support plan.*

MO-7: Metro has not addressed critical but unanswered questions, including whether the suburban markets will accept:

- higher density (schools, parking, etc.) than current.
- regional, out-of-UGB parks.
- narrower streets when auto use in the area's new developments will be higher than average.

*There appears to be a difference in how the term market is used. As we use the term, we refer to a piece of space and time wherein the demand, supply, and price of goods and services is jointly determined. We presume the extended Metro region (6 County including Clark, Columbia and Yamhill) to be such a market. Just as the market responded to the age of freeway building and loose environmental development standards by consuming lots of cheap land, the market is now reconfiguring to use and*



*reuse land far more efficiently. So why is this? We are no longer providing unlimited access and enforcing much higher infrastructure standards. Suburbs reflect the era of cheap land, they do not reflect a rigid preference pattern indifferent to prices. Secondly, the region is already building to the densities assumed in the draft Urban Growth Reports. All indications are that the higher density products in pedestrian friendly mixed use areas are very successful in the "market," indicating some consumers greatly prefer this development style. The larger cities are already accepting higher densities, and many have already or nearly completed most of their rezoning.*

*Most of the existing regional parks were well outside the urban area at the time of their purchase. Most of the new regional parks are near the periphery of the UGB, and as development occurs these parks will be close to users. Most regional parks are currently accessed by car.*

*Residential streets, narrow or wide, are never used at anywhere near capacity. Ideal residential streets are mainly vacant space used by children, family pets, etc. and an occasional car or truck. Traffic use of residential streets near capacity precipitates a traffic control program. Traffic capacity is not an issue for residential street but habitability and compatibility is. We have strong empirical data that auto use will be diminished on new developments that are mixed use and highly accessible.*

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**Step 6: Convert available land to household and employment capacity using existing city and county comprehensive plans--based on assumed average densities for residential categories**

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ZG: no critique

MO: no critique

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**Step 7: Subtract for underbuild--based on average "underbuild" rate, current single family densities are 21% less than allowed densities under current local plans**

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ZG-1: Metro's original and apparently fact-based estimate was a 15% underbuild. The Council's Growth Management Committee (GMC) increased underbuild from 15% to 21% without factual basis and this resulted in reduced capacity of about 12,000 DUs (dwelling units).

*Metro's study of underbuild showed a regional average of 21%, which was used in the determination of capacity using the traditional approach. The second part of the March 1996 Buildable Lands and Capacity Analysis, which determines capacity using*

## Appendix B

*2040 assumptions, uses 15% underbuild, although that has been changed by Metro Council in the current version of the draft 1997 Urban Growth Report. The current version uses 27%, which reflects underbuild and the Zell factor combined.*

ZG-2: This is a very critical element that Metro did not correctly identify. With regulations that mandate building no less than 80% of minimum density, and a strong market, the 21% figure cannot be justified and is not factually based.

*Two points need be made. One, the underbuild reflects both market and land quality. The market has moved to densities commensurate with Functional Plan required densities but land quality is going the other way. No jurisdiction will be able to require more lots on a given tract of land if it is physically and financially impossible to do so. Secondly, the underbuild factor is applied to SFD (single family dwellings) land only in both 1996 and 1997 draft Urban Growth Reports. The Council has debated this point and made a policy choice.*

MO-1: Metro correctly recognizes that market resists high density — this is a basic reason for underbuild — but this recognition is not consistently applied to other parts of the Growth Report and other adverse effects, such as housing costs, public acceptance, etc.

*Most underbuild is not a market condition, it is simply the geometric fact that not every lot in a subdivision can be the minimum lot size. Secondly, as available buildable land becomes lower in quality, we expect to find that parcel access and physical conditions will impose more stringent development impediments. Most zoning exists to prevent higher density than the market would otherwise build. Furthermore, current development is exceeding the multifamily density forecast, and is within 90 percent of the single family density, so the market seems to be content to use the higher densities permitted to supply products that appear to be selling well.*

MO-2: Metro does not recognize underbuild for MFR (multi-family residential) but rather only for SFR (single family residential) zoning.

*Not correct. Metro uses a weighted average MFD [multi-family dwelling] of 21 units per acre that is below the zoning allowance. Our current indicators from the Baseline Urban Growth Data report show that the regional average current density for multi-family units is 29.1 units per net acre that is higher than the draft Urban Growth Reports assumption of approximately 24.6 units.*

MO-3: Metro's use of the 21% factor is not factually based.

*The 21 percent factor was based on a factual study of recent subdivisions documented. It is consistent with many other studies on underbuild.*

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**Step 8: Add back already platted lots from Step 3 (which needed to be excluded to allow for more precise capacity calculations)**

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ZG-1: This number appears to be conservative — it incorrectly assumes no replatting of the land. This is not fact-based.

*This is a conservative estimate. There may be some replatting of land but without any study of the amount, and the very small potential for this to contribute to capacity we made the conservative assumption that these lands would be built with one home each.*

MO-1: The number of lots platted is a moving target that Metro has not specifically addressed. Metro does not have good data with respect to lots platted nor does its data include plats that are in the approval process.

*This is not a moving target — the number of units is noted at Step 3. This simply counts capacity that was not previously counted.*

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**Step 9: Rezone densities to the Metro 2040 Growth Concept (except for already platted lots) to increase densities above current practices**

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ZG-1: Metro's 1995 and 1996 estimates understate what is and can further be accomplished in achieving density improvements, especially in the area of townhouse market shares.

*Our 1996 data for newly constructed single family, including row and townhouse products, remains 17% over our 2040 density assumptions.*

ZG-2: Metro is not clear on basis for 60% more housing per acre -- where does it come from?

*The basis for 60 % is discussed in the draft 1996 Urban Growth Report. Suburban residential vacant land goes from 4 and 6 units per acre to 8.2 units per acre. Almost all urban vacant and developed land remains the same — 8.2. Station areas, transit corridors, town centers, etc. increase density. Most of these areas are presently designated as multi-family or commercial.*

MO-1: Zoning requirements are the "invisible shoe horn" that is not achievable. The extremes of this factor have no basis in fact or history nor is it a generally accepted notion by most planners, economists, and other experts in the field. Density factor is greatly exaggerated to accommodate a predetermined outcome.

*We have surveyed the literature and produced our own studies that support the existence and effectiveness of this market mechanism (price) for efficiently rationing*

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*land. The terms "zoning requirements" and "invisible shoehorn" imply that we are forcing the market to move where it does not want to move. What the "town center," "station area," and "regional center" designations do is allow for much more market flexibility than is presently the case. Regarding "extremes," as mentioned above, the market is currently near to or exceeding the densities planned.*

MO-2: Metro has no factual basis to assume 60% "upzoning" and increased density of housing potential for currently vacant land.

*A 60 percent upzoning is not required of local governments. Their target is based on actual projected yield, not simply the rezoning. The actual increase in density on vacant land is 18 percent. Many jurisdictions have rezoned land to meet or exceed this standard. This step is used to establish an estimated rezoning, prior to consideration of other factors. The actual consumption of land per unit produced and related densities are essential factors in this analysis. Our data shows these rates are very close to current market trends.*

MO-3: Metro has no factual basis to assume that SFR [single family residential] densities will rise from 5.3 DUs (dwelling units) per buildable acre to 8.8 (a 60% increase).

*Actual increase after rezoning, underbuild and ramp-up is 18%, not 60%. The current market trend is to build at higher densities, which supports this assumption.*

MO-4: Large differences between Metro's projected "double densities" and current conditions demonstrate that the market will not accept extreme zoning.

*The needed increase is about 20 percent increase in density over that built during the late-1980's, and to keep the current rate of infill and redevelopment going. We also encourage new housing products, primarily by removing regulatory and institutional barriers to market experimentation. Local governments have responded by allowing smaller lots and a wider range of housing products. The market appears to be responding.*

MO-5: Metro overlooks the possibility that even a more modest rezone estimate (15% increase versus Metro's 60%) would require 17,000 acre expansion.

*The rezoning utilized in the draft Urban Growth Reports is based on adopted Metro Council policy — the Metro 2040 Growth Concept. These policies are the result of over five years of extensive public discussion and debate. Local governments have repeatedly expressed an inability to fund infrastructure expansions to accommodate a large or even modest expansion of the UGB. Current rezoning is apparently responding well. Also, our Performance Measures are being crafted to monitor conditions every two year. If it becomes apparent that targets are not being met, adjustments may need to be made.*

MO-6: Metro has no factual basis to assume heavy reliance on mixed-use development.

*Mixed use, as defined in the Urban Growth Functional Plan, is not limited to mixed use in a single building, but includes its more common form of horizontal mixed use of single use buildings. Under our definition, for example, all the residential units in the Orenco project currently under construction are "mixed use" because they are close to employment, although 95 percent are in purely residential buildings. In addition, vertical mixed use is increasing in popularity.*

MO-7: Metro has no factual basis to assume that the market will accept the elimination of relatively large lot (1/2+ acre) zoning.

*Our data indicate less than 1 percent of lots developed in 1996 exceed 1/2 acre.*

MO-8: Metro ignores known market forces and political factors, such as buyers do have preferences and, if needed, will acquire political power to exercise them.

*We have completed a number of studies that measure market preference from a willingness-to-pay perspective. Concerning the political factors, the Functional plan was supported by the great majority of local governments in the region and by both the Metro Policy Advisory Committee and Joint Policy Advisory Committee on Transportation. Most local governments are well under way in implementation.*

MO-9: Metro's projections and assumptions are based totally on subjective estimates rather than history or public desires.

*Any plan other than the status quo constitutes a subjective estimate. We have ample data on public desires. This information tells us that continuation of the status quo in land consumption and land development is one of the least supported options on which we have gathered data.*

MO-10: Metro has not addressed the known downsides of density. The work has no connection to market or reality.

*Downsides have been addressed in the Concepts for Growth — that is why the projected density increases were modest, and concentrated in mixed use areas.*

MO-11: Metro has not addressed a big unanswered question: Will market respond to restriction on large lots by using double lots for home construction?

*We encourage local governments to allow this option. The problem with large lot zoning is that the small lot option is precluded. We want to allow the market to choose small lots if there is a preference for it, but if individuals want a larger lot and want to buy two or three — fine. Based on our data the effect will be minimal.*

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### Step 10: Subtract for underbuild--based on projections of effective yields, single family densities will be 15% less than allowed densities under current local plans

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ZG-1: Metro's original and apparently fact-based estimate was a 15% underbuild. The Growth Management Committee (GMC) increased underbuild from 15% to 21% without factual basis and this resulted in reduced capacity of about 12,000 dwelling units.

*The Metro council has debated this point and made a policy choice to combine underbuild and Zell factors at 27%.*

ZG-2: Metro's 1995 and 1996 estimates of underbuild factor should be lower.

*21% was the "factual" number. 15% presumes that we believe housing price increases have removed the market factor component from underbuild and we are left with a yield loss due to parcel unsuitability.*

MO-1: The 15% underbuild factor has no basis in the market place nor a factual basis anywhere.

*Metro Council directed staff to change the underbuild factor to 27 percent. The increased underbuild factor recognizes development limitations on parcels with physical restrictions. The higher percentage also reflects Metro Council's decision to eliminate the Zell Factor and, therefore, the potential for double counting that could occur when considering both discount factors. The 27 percent underbuild factor is reflected in the draft 1997 Urban Growth Report.*

MO-2: Metro artificially recognizes market resistance to high densities in the underbuild factor — but this recognition is not consistently applied to other parts of planning (e.g., adverse effects on housing costs, etc.).

*See Comment under MO-1.*

MO-3: Metro incorrectly implies or assumes that the underbuild factor will not increase as allowed densities increase.

*Baseline Urban Growth Data seem to indicate the opposite of the criticism--underbuild is increasing. Current return on larger lots also indicate the opposite of this criticism. Discussions with approval authorities from local governments is that underbuild may have been reduced to almost zero in some jurisdictions.*

MO-4: Metro's shuffling of the underbuild figure derives from a desire to reach a predetermined outcome of little or no UGB expansion.

*The current draft 1997 Urban Growth Report recommends a 7,000-acre expansion. We try to model both current market, market forces, and the likely outcome of public policies, such as the implementation of 2040 and allowing higher densities than regulations currently allow. There was and is no predetermined outcome.*

- MO-5: Metro only calculates underbuild as related to SFR [single family residential] construction — it excludes consideration of MFR [multi-family residential] construction or effects of rezoning multifamily land for SFR use. Metro has failed to evaluate the biggest source (MFR) of underbuild and greatly underestimates the factor.

*We studied MFR conversion to SFR, and found that it occurs. We also found a lot of MFR being built on SFR. MFR land used to be plentiful, and prices low. The MFR building booms of 1995 and 1996 and so far into 1997 have reduced the land base and MFR land prices are now competitive with SFR if not higher. The market has taken care of the problem. Our data indicate that MFR underbuild is no longer a problem, and actual densities are higher than estimated.*

- MO-6: Metro did not address need for industrial and office land in underbuild areas — residential only was projected.

*No basis for computing nonresidential underbuild. Nonresidential densities are increasing everywhere and exceed the forecasted amount.*

- MO-7: Metro has not recognized that market does not and will not support such a high underbuild factor.

*Same as Comment for MO-6.*

- MO-8: Metro fails to address too many market place constraints and basic uncertainties in its "managing" of the UGB.

*It is Metro Council policy and state law to require reassessment of regional policies. If the market does not respond, future reviews and state law will require adjustments. We require a two-year review of performance measures and a five-year evaluation of the adequacy of the UGB. Performance measures are being crafted to monitor conditions every two years, regional policies are mandated to be reassessed every seven years, and the urban reserves are to be revisited every 15 years.*

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### Step 11: Add in platted lots--as compared to Step 8, this step adds platted lots to the 2040 Growth Concept capacity

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ZG-1: Metro's 1995 and 1996 estimates understate what is and can be accomplished in achieving smaller lot sizes and related densities.

*According to the Baseline Urban Growth Data, the region is at 90% of the targeted density assumed in the draft Urban Growth Reports and only 76.3% of the density in the Urban Growth Management Functional Plan. Assuming a higher density is presently not merited.*

MO-1: Planned densities are applicable to areas NOT already platted but Metro included already platted areas that have densities quite different from Metro model:

*The 10,894 dwelling unit capacity associated with the existing platted single-family lots reflects existing zoning. There is no rezoning of these lands assumed. It is the same as Step 3 and Step 8.*

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### Step 12: Subtract difficult to develop parcels (the "Zell Factor") thereby adjusting the 2040 Growth Concept capacity for potential physical development barriers

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ZG-1: The Zell study and related assumptions are based on small, unrepresentative samples.

*The sample amounted to over 200 parcels that were chosen to be representative of various classes and locations of vacant land according to the RLIS data base. The current draft 1997 Urban Growth Report increases underbuild to account for the Zell factor, which is eliminated in the report. This was done at the direction of Metro Council.*

ZG-2: The Metro Council's Growth Management Committee increased Zell discount factor from staff-recommended 12.7% to 18%, thereby reducing housing capacity by 10,000 dwelling units.

*This is incorrect — the report used a complex GIS model to estimate this factor. The Zell factor was not a percentage factor, but rather based on this model. This model had the effect of a 12.7% reduction.*

ZG-3: The "Zell Factor" overlaps with the underbuild assumption. Metro did not recognize this.

*The Metro Council has subsequently recognized the potential for overlap with underbuild and the Zell factor by combining the two factors: 12% Zell + 15%*



*underbuild = 27% total. The Council directed staff to use 27% for underbuild in the current draft.*

MO-1: The Zell and related factors are real but Metro erroneously plans for building in areas (e.g., steep slopes) that will not accommodate high density or most other types of construction.

*Slopes in excess of 25 percent have been removed in Step 4 and are not considered for any construction.*

MO-2: Metro has double-counted an undetermined amount of acreage within the Zell and underbuild factors — especially those having slopes between 25% and 30%.

*Again, slopes in excess of 25 percent have been removed in Step 4. The underbuild factor was increased to 27 percent to combine underbuild and the Zell factor (physical limitations). The 27 percent underbuild factor is reflected in the draft 1997 Urban Growth Report.*

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**Step 13: Subtract capacity to allow for time for cities and counties to rezone (ramp-up period)**

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ZG-1: Metro's 1995 and 1996 estimates understate what is and can be accomplished in achieving ramp-up because it is happening at a rate faster than Metro assumes.

*Present ramp-up is now 5 years: 1994 - 1999. To the best of our knowledge only a portion of the rezoning necessary to implement the Functional Plan has been done. Our data suggest the market is ahead of land use regulation. Given that only 2 years of ramp-up remain and the regulatory changes are not yet in effect, the 5 years looks pretty good.*

ZG-2: Metro's assumption of a 10-year ramp-up is much too conservative. A more defensible and realistic number is 3 years.

*Metro used a 7-year ramp-up period in the draft 1996 of the Urban Growth Report. The 1997 draft uses 5 years.*

ZG-3: Hindsight shows the region is closer to reaching some targets than originally assumed, such as lot square footage. This was known at the time of the draft 1996 Urban Growth Report but not considered.

*We made no baseline assumptions until this year. No comprehensive lot data existed prior to 8/96. We have not reached the critical SFD [single family dwelling] density target. We may get there, however, our burden of proof is to demonstrate a change from actual data (the status quo).*

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ZG-4: Status quo factors are closer to targets in draft 1996 Urban Growth Reports than assumed in Growth-o-Matic.

*Growth-o-Matic was an instructional tool used to explain relationships between factors. It does not substitute for the complex GIS-based model used for the draft 1996 Urban Growth Report, and was not used for decision making.*

ZG-5: Hindsight now tells us Functional Plan implementation has already begun but this should have been anticipated in Report.

*Functional Plan implementation, if completed by 1999, may allow us to reach the targets anticipated in the present draft 1997 Urban Growth Report.*

ZG-6: Hindsight now tells us employment densities have already exceeded target but this should have been anticipated in Report.

*We have not forecast employment land to be a problem. There appears to be sufficient employment land for the 2017 forecast.*

ZG-7: The figures used to determine lot size were 1995 building permit figures — 1996 should have been considered.

*The single-family lot size in the Baseline Urban Growth Data uses information from the draft 1997 Urban Growth Report. The 1996 building permit data is being audited by the Metro Data Resource Center. We are still 10% below target for the draft 1997 Urban Growth Report in 1996 lot size.*

MO-1: Metro incorrectly assumes that ramp-up will happen fast but market will not allow for such a quick reaction.

*Our present data indicate the market is moving faster to smaller lots and higher densities than local governments anticipated. Politics and policy respond slower than the market.*

MO-2: Metro assumes a linear increase for ramp-up but it may take more time for transition, if it ever completely happens at all.

*The shape of the curve is not really relevant to land consumption. It's the time period that is the crucial factor.*

MO-3: Metro does not recognize the historical fact that effective yield of densities may never be reached.

*Metro does not presume 100 percent of potential capacity is used in 20 years. Our current forecast is that about 85 percent of potential residential capacity inside the UGB will be used by 2017.*

MO-4: History shows that total ramp-up will take most or all of the 20 years, if not more time.

*We are unaware of any history regarding ramp-up factors.*

MO-5: We are now halfway into the planned ramp-up period and no effective zoning or other changes have occurred.

*There is a remarkable amount of work underway, and the local jurisdictions' code and plan changes (both adopted and pending) are very encouraging toward meeting our estimates.*

MO-6: Effect of delayed or slow ramp-up not addressed by Metro.

*Metro Council, as well as others, examined the effects of a longer ramp-up period (10 years) and of a shorter period (five years). Metro Council directed staff to revise the draft 1996 Urban Growth Report and to change the ramp-up period from seven years to five years. Performance Measures will be used to evaluate and adjust, as necessary, Metro's functional plans, UGB and other regional plans.*

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**Step 14: Add estimated acres gained through 2040 Growth Concept redevelopment capacity**

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ZG-1: Metro's 1995 and 1996 estimates understate what is and can be accomplished in achieving redevelopment.

*We used a measured actual rate of 27.5%. Our rate for 1996 was 29%. We believe these two numbers are not statistically different and represent the best and only estimate of the amount of redevelopment occurring in the region.*

ZG-2: Metro's GMC (Growth Management Committee) without factual basis decreased the redevelopment rate by 15%, resulting in decrease in housing of potential 8,100 DUs (dwelling units).

*The Growth Management Committee adjusted the rate downward to 27.5% to calibrate it to a measured actual rate. This was their policy decision, and one that is justified by the facts.*

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MO-1: Metro has no factual or historical basis for assuming demolition and redevelopment of parcels with structures less than 50% of local mean value.

*Real estate industry literature continues to support the contention that land value (measured as vacant land at its economic maximum use) is the best measure of redevelopment potential after the undepreciated value of the improvement is subtracted from the total property value. We are using 27.5 percent as the rate for redevelopment and infill.*

MO-2: Metro has no basis for assuming demolition and redevelopment of sites less than 1 acre if building value is less than land value.

*We are not assuming this. Part of our estimate for the stock of redevelopment comes from parcels greater than one acre, where a comparison of building and land value is used. If the building value is less than the land value, the parcel is considered redevelopable. We continue to refine our criteria for estimating stock. Redevelopment and infill will be monitored and adjustments will be made, if necessary.*

MO-3: Metro has no basis for assuming demolition of 21,518 housing units being replaced by 75,725 new housing units.

*We determined the number of dwelling units that could be displaced by redevelopment by determining the number of existing units on the parcels that were identified as redevelopable.*

MO-4: Metro has no basis for assuming redeveloped acres through demolition will be 21% residential, 22% employment, and 57% mixed use. Metro's redevelopment factor is greatly exaggerated to accommodate predetermined outcome — no basis in fact or history.

*These acreage is computed from RLIS. In no way could the percentages based on thousands of tax lots have been juggled to substantiate a prearranged outcome. The percentages relate to the zoning of the more developed centers of the region.*

MO-5: Metro's capacity estimate assumes the entire stock of redevelopable lands will indeed be redeveloped. This has never happened anywhere. Metro fails to recognize alternative or other possible scenarios.

*We do not make this assumption. As we move forward in time the stock adjusts for changes in prices and depreciation. Over the long term, all developed land is usually redeveloped. For example, in older cities on the East Coast most sites have been redeveloped many times. In Portland, the downtown has been continuously occupied since 1840, but few buildings exist that are more than 50 years old.*

MO-6: Metro ignores sub-issues, such as ability to purchase lands, demolition costs, environmental hazards, other costs and general lack of feasibility.

*These factors are implicit in the rate of redevelopment, which in turn is a function of the condition of the residential and nonresidential real estate stock and future market prices. Though we do not specifically account for all of these factors they are implicit in the rates we calculate.*

MO-7: Metro does not address what will happen to the displaced residents — major implications on affordable housing issues.

*By definition, the homes that are demolished are the most depreciated and lowest quality buildings. Residents in low-income communities are more likely to be displaced with or without Metro's efforts to prevent displacement as a result of rezoning or demolition. However, retaining people in dilapidated housing that needs replacement is no answer to the affordable housing problem.*

MO-8: Metro has not done studies of past redevelopment trends to support its projections.

*Metro has based its forecasts on studies of actual redevelopment. Metro has measured redevelopment for two years: 1994 and 1995. There is almost no literature on the subject. No longitudinal studies have been done to infer redevelopment rates and most importantly what causes redevelopment rates to change.*

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**Step 15: Add estimated acres gained through 2040 Growth Concept infill capacity**

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ZG-1: Metro's 1995 and 1996 estimates understate what is and can be accomplished in achieving infill.

*Our rate assumption is justified by what we presently observe.*

ZG-2: Metro Growth Report assumptions do not impose 2040 Concept densities.

*The reports do allow for rezone according to 2040 densities.*

ZG-3: Metro does not recognize that it has an over supply of industrial land — a 100 year supply. Such lands should be considered for additional DUs (dwelling units).

*Our examination of the industrial sanctuary areas that contain the bulk of vacant land in Columbia South Shore, Tualatin-Wilsonville, and Hillsboro is that there are too many sites developed for industrial uses to allow residential uses in these areas, with few exceptions.*

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ZG-4: Only lots that were at least 300% larger than the zoned densities were counted in the infill figure. This excludes lots 200% larger than zoned density — these should have been factored in, thereby increasing real capacity of UGB. Also, this assumes the existing unit remains on a double lot, and additional partitions (for lots 5-10 times larger than the allowed zoning) is capped at three units. This does not allow the full capacity under the current or 2040 zoning.

*We made two stock estimates for infill — this estimate was very conservative. However, for both infill and redevelopment it is the observed rate that is the limiting factor, not the stock of potential lots. Until we see large increases in rates of infill and redevelopment we cannot justify assumptions that do not concur with practical experience.*

MO-1: Metro has no factual basis to assume infill rate of 16.8% (infill units/new units), 1995 data is sketchy. The factor is greatly exaggerated to accommodate predetermined outcome.

*We have carefully measured this twice and will be monitoring it on an ongoing basis as part of our building permit data entry process. The Draft 1997 Urban Growth Report uses 13 percent to calculate infill capacity.*

MO-2: Metro has no factual basis to assume constant infill rate to the year 2015.

*We are conservative in assuming a constant infill rate. Prices will always be higher than the 1995 baseline, and we have estimated a very large stock (116,000) of lots with infill potential.*

MO-3: Metro has greatly exaggerated infill rates and estimates, such as City of Portland ability to absorb 70,000 units vs. 2,000 to date. Market is not willing to accommodate Metro wishes.

*Our estimate of units to be built in Portland is 53,000 units — this amounts to about 2,300 units a year. They have reportedly built 2,600 units in 1996.*

MO-4: Metro has based its infill rate on an unfounded expectation rather than a total stock of possible infill.

*We use a very small portion of lots with infill potential. We identify a stock of potential infill sites of 116,440, however, we base our calculation on a conservative amount — 26,340 lots and use an infill rate of 13 percent.*

MO-5: Metro does not recognize that best land is already taken and developed, especially in current "hot" market, most of the lands projected as infill are marginal for infill or development.

*Infill does not show up on our vacant land inventory. The fact that vacant land is deteriorating in quality helps drive up the infill rate (through reduction in supply and subsequent price increases).*

MO-6: The market will not allow for Metro's projected constant infill rates when in fact prices will have to rise more sharply than Metro recognizes for this to happen. Relatedly, effects of such price escalation are not addressed. Also, Metro has not addressed implications on affordable housing issues.

*We identify an ample stock of lots with infill potential for the current rate to continue.*

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**Step 16: Estimate 100% conversion of farm use assessed lands within current UGB, or consider all 8,124 acres as buildable**

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ZG-1: State Department of Land Conservation and Development requires counting 100% of farm assessed lands as developable. Metro's GMC (Growth Management Committee) without factual basis reduced this to 70% that thereby reduced housing capacity by potential 12,000 DUs (dwelling units).

*We count 100% of the farm assessed lands, not 70%.*

MO-1: Without a factual basis, Metro erroneously believes that none of the 11,795 farm acres will remain vacant beyond 2015. Legal requirements may be that 100% of farm lands be projected as developed but reality may be different, possibly in the 70% range. Metro needs to acknowledge this shortfall.

*Farm land is converting on a steady basis consistent with prices and life cycle. Farm land went from 19,804 acres in 1990 to 11,715 in 1995 — a decrease of 41 percent. At this time, state law requires that 100 percent of farm lands be projected for future development and Metro Council has directed that we consider 100 percent of the farm tax deferred land in our calculation of buildable land inside the UGB. Conversion of farm tax deferred land will be monitored and adjustments made if necessary. At the current rate the market will consume all of the farmland in the UGB in the next 20 years.*

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### Step 17: Compare UGB capacity with forecasted 20-year need to determine acres of needed UGB expansion

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ZG-1: Metro staff used 70% residential population growth inside the UGB but the Metro Council's GMC (Growth Management Committee) increased it to 74% without factual basis.

*We are using 70% as the residential population growth inside the UGB. Although the 74% was discussed in the GMC, Metro Council voted to use 70%.*

MO-1: There is an insupportable assumption for the Metro position that ALL vacant lands in excess of 3/8 acre will be filled with development by 2015.

*Our present 2017 projections have 206,000 dwelling units allocated out of a Functional Plan capacity of 244,000 (84.4 percent). Functional Plan capacity reflects a 20 percent reduction from statutory capacity to account for a variety of factors. Also, land will continually be added over time from the Urban Reserves.*

MO-2: Metro's 1.6% and 1.9% forecasting of homes and jobs, respectively, has no range and no sensitivity analysis of possible outcomes (i.e., what would happen if the projection turned out to be a reality of 1.2% and 1.6%? Or 1.9% and 2.1%?).

*The main variable of concern in the UGB is capacity. The timing of the use of that capacity is more uncertain and less important. As the forecast is updated regularly and requires a 20-year supply at that time (considerably in excess of what is needed between forecast updates) the timing variables can be adjusted each update.*

MO-3: There is no basis in fact or in the marketplace to support Metro's assumption that the projected housing units in 20 years (690,000) would produce an acceptable density of almost 7 units to the acre.

*We do not know from where these numbers and density calculations come. The forecast incremental density from the draft 1997 Urban Growth Report is 5.7 dwelling units per gross vacant residential acres.*



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**General Criticisms and Metro's Responses**

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ZG-1: The UGB expansion will someday be needed. UGB decisions must be based on facts. The Metro Executive Officer had no factual basis for September 1995 announcement that UGB should be expanded between 4,000 and 9,000 acres.

*The estimate of UGB expansion was based on preliminary spreadsheet calculations of the effect of the 2040 Growth Concept on containing sprawl. As further work progressed we have refined this forecast, but it was factually based.*

ZG-2: The Metro Executive Officer had no basis for May 1997 announcement that UGB should be expanded 4,000 to 7,000 acres, especially in light of February 1997 Functional Plan that had not been given time to work.

*The evidence is the draft Urban Growth Reports, the Housing Needs Analysis, and the Baseline Urban Growth data.*

ZG-3: Timing of UGB expansion announcements have needlessly predetermined an outcome of expansion that is not factually based.

*We disagree. Our recommendations were always factually based. This has allowed the debate to evolve over the last two years, and motivated many actions that reduce the eventual expansion.*

ZG-4: Local partners feel betrayed with biased expansion announcements because they now lose "pressure" to insist on higher densities.

*We believe that an open discussion of the arguments in a public forum does not betray anyone. It allows a more thorough understanding by the public, and allows for an informed trade off decision.*

ZG-5: The actual need for compliance with the Functional Plan and most efficient use of land is lessened by unfounded UGB expansion announcements.

*Our analysis shows that a realistic assessment of what is possible with the Functional Plan implementation will not alleviate the need for an expansion of the UGB in order to comply with state law.*

ZG-6: The Metro Executive Officer and Council have failed to officially recognize and understand that a more limited or delayed UGB expansion is technically feasible if local governments continued to do their part to implement the Functional Plan.

*See previous comment.*

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ZG-7: Local governments favor the so-called "Zero Option" but Metro often overrides their wishes.

*We are basing our recommendation not only on desires and policy but also on analysis of what can realistically be achieved and on state law.*

ZG-8: Metro has consistently denigrated "Zero Option" recommendations and presentations. Metro has systematically avoided a clear and concise evaluation of "Zero Option" alternatives.

*We do not believe that the "Zero Option" is technically feasible nor desirable, but the options were laid out for MPAC and the Council, debated, and decisions were made. We intended no denigration, but some of the assumptions struck us as unfounded wishful thinking. We admit our forecasting is conservative.*

ZG-9: Metro has had its share of problems and deserves more than its share of criticism on the way it has managed UGB decisions. The draft Urban Growth Reports and Metro predictions lack consideration of wider ranging views than simply the politics of the day that suggests that you "go with the flow" and expand the UGB — regardless of whether it really needs to be expanded at this time.

*We are running a public process open to all data and criticism. If anyone has an argument to make, they should, can, and do make it. These decisions are always controversial, and of course we will be criticized by those who disagree.*

ZG-10: MPAC (Metro Policy Advisory Committee) and MTAG (Metro Technical Advisory Committee) produced a great deal of technically based information that was very precise, well supported, and requested by not only the council but required by state law (that UGB decisions be fact-based). The conclusion of these months of work was that the UGB had certain untapped capacities that were being overlooked by Metro and the Council and that the UGB should not be expanded in the near future. Basically, the technically based data showed that more capacity existed than Metro thought and UGB expansion could be allowed to happen at a later time when local jurisdictions had time to implement the Functional Plan.

*This is a matter of opinion that was presented to MPAC and the Council, debated, and decided. We are following Council policy decisions on this matter.*

ZG-11: The Metro model includes many conservative assumptions that do not match the empirical data that shows we have already met or exceeded 2040 density targets — this has not been recognized and Metro does not take the opportunity to make an informed UGB decision on such data. There is an unneeded rush to expand UGB without fully considering such facts.

*This comment is partially correct in that our assumptions are made relative to defending our changes in the status quo data. The comment is not correct in the*

*presumption that we have deliberately used lower than justifiable assumptions about residential density. Our empirical data show that the density is achievable, but we have not yet achieved it. Also, the 2040 Growth Concept was not only about density, it includes many other values that have to be balanced, such as open space, transportation, and housing choice.*

MO-1: Metro's draft Urban Growth Reports and related documents demonstrate basic non-compliance with state law (HB2709 Sect. 3c(7)) requiring empirical basis for its planning projections.

*We believe that we can meet findings easily, and our legal staff agrees.*

MO-2: Metro has no factual basis to assume that 62.8% (140,776 of 224,000) of needed housing units will come from "new found" land inside UGB.

*We do not know what is referred to as "new found land." As we have stated previously, the residential capacity is from net buildable vacant land, a 17.7 percent increase in density on that vacant land, and redevelopment and infill at the current rate on an ample stock of potential sites. We have documented every fact we used to estimate the capacity of the UGB.*

MO-3: Metro demonstrates basic non-compliance with Goals 2 and 10 (land use planning and housing).

*We disagree. We address these in the Housing Needs Analysis - Revised Discussion Draft (May 1997) Appendix D and in the Legal Requirements section Findings and Conclusions, p. 81.*

MO-4: Metro has avoided any systematic type of overall peer review or other independent analyses of its processes, assumptions, projections, and conclusions. Metro will not consider criticism of its processes and questionable projected outcomes. Metro has not sought criticism but rather has systematically attacked all unfavorable comments to its processes and outcomes.

*There has been ample detailed review by private parties, the Zero Options Group, 2040 Means Business, three professors from Portland State University, all local governments, state agencies, MPAC, MTAC and hundreds of individuals in testimony over a two-year period before Metro Council. Staff has responded to most of these. Staff suggested modifications when we believed weaknesses were validly pointed out. We laid out the potential for different points of view before Metro Council in identifying nine variables that control the basic conclusion of the draft Urban Growth Reports, and identifying ranges of possible estimates for those variables. Metro Council, after hearing from a wide-range of views, made decisions on the variables. We have pointed out that some statements of fact that were made to Metro Council regarding our work lacked sufficient documentation to back up the conclusions.*

## Appendix B

MO-5: A great deal of what Metro says is buildable is really unbuildable.

*We are open to improved methods of estimating the "unbuildability" of our buildable lands resource. The Zell factor, underbuild factor and environmental constrained lands represent methods to measure this. We will continue to refine our analysis and measurement systems to produce better estimates of this effect.*

MO-6: Bottom line numbers on infill rates, carrying capacity, etc. were predetermined by the "Zero Growth" pledge made before planning started. Metro has worked the planning process backwards to "make it happen".

*There has never been any estimate from the Metro staff or Executive Officer for a zero expansion.*

MO-7: The Metro 2040 Growth Concept and related planning may be achievable but it has huge downsides that have not been addressed or fully disclosed to the Council and public. Downsides include: vastly increased land/housing costs, diverting populations to outlying areas, housing affordability problems, potential market crash/recession, massive housing/transportation subsidies, increased traffic congestion and pollution, etc.

*We disagree that the planning has the downsides described. We know of no study that shows this is happening because of the planning, or of any systematic modeling that shows that this would happen. The planning shifts costs since we are essentially internalizing the social costs of urban sprawl. However, it is not correct to assume the planning, over the long run, substantially affects housing costs. Only if the planning produces an artificial decrease in supply will housing costs permanently shift upward. To this point, Metro has acted to increase supply by making zoning more flexible and allowing a wider range of lot sizes at all locations as well as recommending an increase in the UGB land supply. Moreover, by making master planning and infrastructure planning and financing part of UGB expansion it assures that new urban land will actually be useable for urban purposes rather than just producing profits for land investors. Lack of a full range of competitively priced housing products would divert some Metro residents to outlying areas. Density and high real estate and land prices correlate positively with economic growth and development. People will pay more to be where they want to be and up to a certain point will accept less to be there. It has little or nothing to do with urban configuration.*

MO-8: Metro does not recognize the realities of housing supply, demand and related increases in costs. The artificial land constraint of Metro plans will increase the price of land and the cost of housing but that issue has been avoided.

*Prices will permanently rise only if we permanently reduce housing supply below demand. As noted earlier, Metro policies call for removing market restrictions not*

*increasing them. Secondly, at equilibrium no surviving producer of housing will bid more for land than the expected sales price of the house less cost of production.*

MO-9: The draft Urban Growth Reports do not connect planning estimates with certain realities; such as effects on prices, public acceptance of the concept, and consumer preferences; such as willingness to commute from outside the UGB.

*The reality of overwhelming disapproval of large UGB expansions and the lack of infrastructure financing for such expansions is a constraint that is ignored by many critics of the plan.*

MO-10: The Metro housing demand model does not account for increase in households choosing to live outside the UGB.

*This is correct. The Housing Demand and Production Model is presently being revised and calibrated to produce equilibrium prices where people can move to optimum locations be that Belmont or St. Helens. We continue to monitor growth trends outside UGB and presently detect no increase in the share of growth going outside the UGB.*

MO-11: Metro's estimates of unaffordable housing greatly are understated. Metro fails to address the effects of gentrification of existing housing stock.

*Gentrification is another name for mixed income neighborhoods, a goal of most cities with concentrations of poverty. While we recognize the problems and propose solutions, we do not believe that the opposite of gentrification — concentration and isolation of low income persons in pockets — has proven to be a very good solution to the problem of affordable housing.*

MO-12: Planners from local jurisdictions effectively vied for allocations of growth — no public process was involved. Metro has no defensible methods of allocation.

*The draft Urban Growth Reports document our procedures and review methodology. Our methods compare favorably to the present state of the practice throughout the U.S.*

MO-13: Metro does not allow for any basic margin of error in estimates of ways to accommodate growth. Metro's estimates of future accomplishments vary greatly from current history.

*In order to deal with uncertainty we have adopted a system of close and frequent monitoring and frequent adjustments. The region's progress will be measured and evaluated. If necessary and noted in our Performance Measures, changes will be made. We continue to monitor development trends. Our long run density estimates vary from the history of the 60's and 70's, but accord well both with present trends and trends in the 20's when similar real estate price conditions prevailed. Keep in mind that the public has given us a goal to not replicate the post W.W.II sprawl.*

## Appendix B

MO-14: Metro's planning documents hide its basic contradiction — the densities projected are achievable only with greatly escalated prices, the downsides of which are not addressed (e.g., unaffordable housing). Increased housing prices will greatly increase homelessness.

*We disagree with this conclusion about the impacts of the plan.*

MO-15: Metro growth allocations were made without recognition of basic aspects of UGB carrying capacity or market forces.

*"Carrying capacity" has not had much serious use beyond studying creatures in spatially and temporally limited habitats. It is not a model that is useful to objective measurements. The rest of the question on market forces has been answered many times already.*

MO-16: Metro created 2040 densities in order to essentially "freeze" the UGB.

*So why are we recommending expanding it, and have consistently done so since 1995?*

MO-17: Draft 1996 Urban Growth Report represents substantial increases in housing densities but decreases in area amenities, like parks and open spaces.

*Parks and open spaces will remain the same per capita or increase according to the data we have.*

MO-18: Metro's employment and population forecasts are mistakenly independent of land use actions.

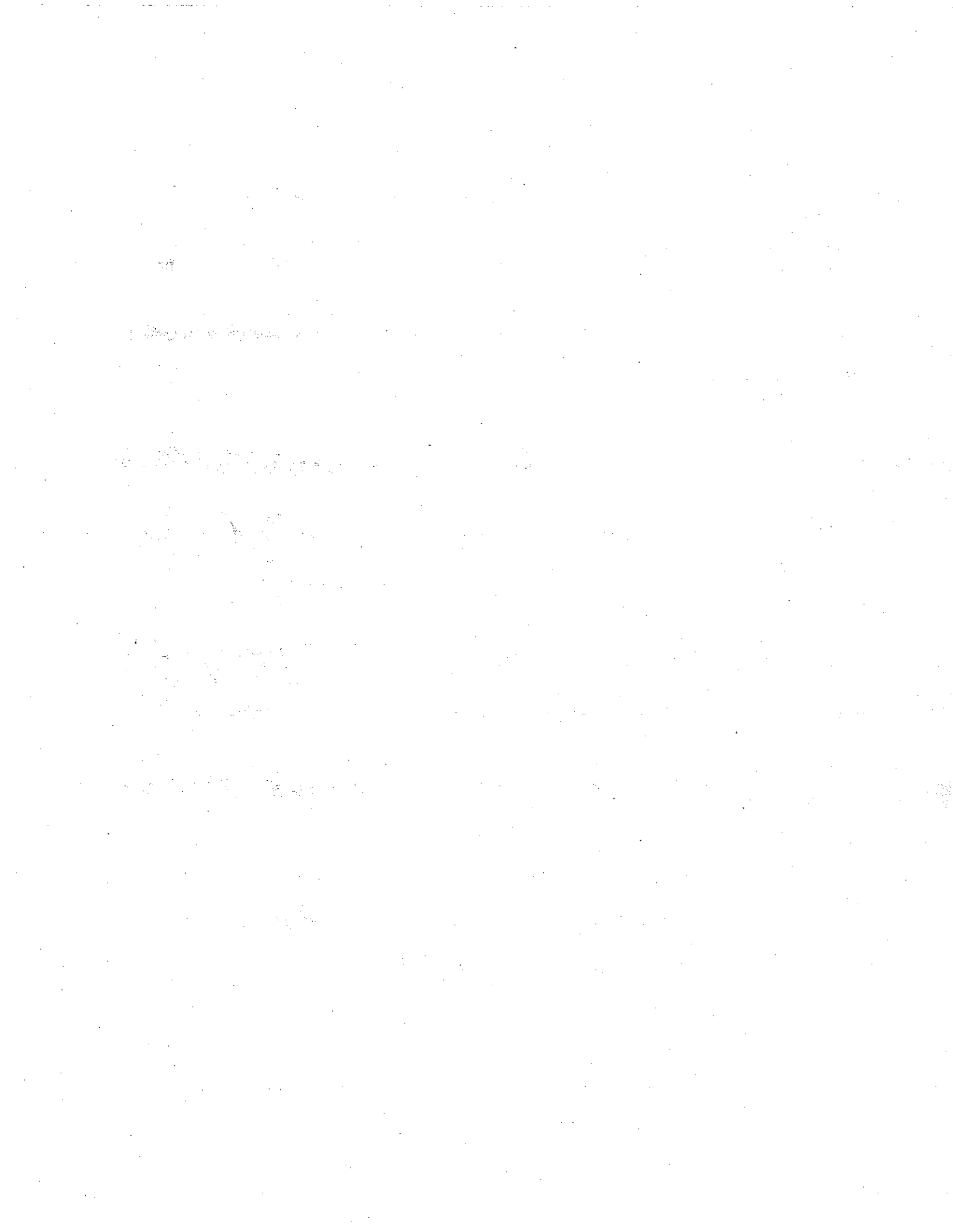
*This is not a mistake. It is a conscious decision and reflects the reality that no region can demonstrate a dependence of regional economic performance on the local real estate market.*

MO-19: Metro has not produced a forecast of the quantity and character of office and industrial land demand, and therefore have no basis to support its contention that the current land supply can support anticipated employment.

*We have a great deal of data on lot size, location, proposed zoning and current consumption of land, and of density of employment. The kind of forecast mentioned is impossible to make for a 20-year time frame.*

MO-20: The staff has not presented balanced presentation of the draft Urban Growth Reports' implications to Metro Council and the public (i.e., negative implications such as unaffordable housing issues are not given same degree of "air time").

*Please see Housing Needs Analysis report. We have a forecast of affordable housing needs. We disagree that the UGB can do much to help. Selected increases in the size of the UGB over a five- to seven-year period do next to nothing to change housing output and reduce prices.*





## Explanation of Metro's "17 Step" Planning Process

State law that originated in 1973 requires land use planning and determining urban growth boundaries (UGB). Other state law required Metro to be the body that determines the UGB for the greater Portland metropolitan area. Historically, planners calculated the comparison between need and capacity based on the capacity of vacant and buildable land. Planners compared a forecasted number of additional households and jobs expected in the region for twenty years with the current inventory of zoned vacant, buildable land. They converted this to the number of acres needed for residential, commercial, and other uses. Metro has taken the "traditional" planning method further to allow for more population growth within the UGB. As presented in Metro's draft 1986 Urban Growth Report, the following table presents the "17 Step" UGB planning method that included traditional and innovative methods of calculating UGB capacity.

Step	Objective of Step
1	Determine the total area inside the current UGB (232,667 acres)
2	Subtract 177, 627 acres of developed lands, water bodies, and existing parks and
3	Subtract 1,585 acres of already platted lots
4	Subtract 15, 945 acres of steep slopes, floodplains, wetlands and land along streams
5	Subtract 12, 714 acres for future schools, parks, etc. ("Gross-to-Net")
6	Convert available land to homes (121,344) and jobs (212,259) capacity using existing city and county comprehensive plans
7	Subtract 12,185 homes for "Underbuild"
8	Add back in already platted lots (10,894 homes)
Note:	Steps 1 through 8 are "traditional capacity calculation methods." These steps are essentially mandated by state law. Metro concluded from the 8 steps that if existing comprehensive plans do not change, the UGB cannot accommodate a then-estimated 224,000 homes and 437,000 jobs over the years 1995 to 2015. Steps 9 through 17 implement the 2040 Growth Concept.
9	Rezone densities to the Metro 2040 Growth Concept (except for already platted lots), yielding 194,033 homes and 322,780 jobs
10	Subtract 29,105 homes for "Underbuild"
11	Add in platted lots, equivalent of 10,894 homes
12	Subtract 23,817 homes for difficult to develop parcels (the "Zell factor")
13	Subtract capacity to allow for time for cities and counties to rezone ("Ramp-Up" period)
14	Add estimated redevelopment capacity to include 54,207 and homes 136,858 jobs)
15	Add estimated infill capacity to include 24,570 homes and 50,690 jobs
16	Estimate 100% conversion of farm use assessed lands within current UGB, consider 8,124 acres buildable
17	Compare with 20-year need for 224,000 homes and 437,000 jobs. This "net figure" yields a 4,447 homes deficit and 38,911 jobs surplus for the UGB.



# Metro Auditor Report Evaluation Form

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Please rate the following elements of this report by checking the appropriate box.

	Too Little	Just Right	Too Much
Background Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Clarity of Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Thanks for taking the time to help us.

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