

ANNOTATED MINUTES

Tuesday, April 26, 1994 - 9:30 AM
Multnomah County Courthouse, Room 602

BOARD BRIEFING

B-1 Briefing on the City of Portland's Approved Budget. Presented by Mayor Vera Katz.

RESCHEDULED FOR 1:00 PM, TUESDAY, MAY 3, 1994.

Tuesday, April 26, 1994 - 1:30 PM
Multnomah County Courthouse, Room 602

PLANNING ITEMS

Chair Beverly Stein convened the meeting at 1:35 p.m., with Commissioners Sharron Kelley, Gary Hansen and Dan Saltzman present, and Vice-Chair Tanya Collier arriving at 1:40 p.m.

P-1 CS 2-94 Review the March 30, 1994 Hearings Officer Decision, Approving, Subject to Conditions, a Community Service Designation for the Addition of a Gymnasium and Classroom Building at Alice Ott Middle School, Located at 12500 SE RAMONA STREET, PORTLAND

DECISION READ, NO APPEAL FILE, DECISION STANDS.

P-2 CS 3-94 Review the March 30, 1994 Hearings Officer Decision, Approving, Subject to Conditions, a Community Service Designation to Allow Development of a Respite Center for Children and Training Center for Professionals, on Property Located at 15005 SE DIVISION STREET, PORTLAND

DECISION READ, NO APPEAL FILE, DECISION STANDS.

Tuesday, April 26, 1994 - 1:30 PM Following Planning
Multnomah County Courthouse, Room 602

BOARD BRIEFING

B-2 Update on Metro's Region 2040 Interim Report and Testimony from Invited Members of the Multnomah County Planning Commission. Presented by Mark Turpel and Stuart Todd of Metro.

MARK TURPEL AND STUART TODD SLIDE PRESENTATION AND RESPONSE TO QUESTIONS AND COMMENTS OF PARTICIPANTS BEVERLY STEIN, TANYA COLLIER, SHARRON KELLEY, GARY HANSEN, DAN SALTZMAN, SCOTT PEMBLE, GORDON HOWARD, SHARON TIMKO, JOHN DuBAY, SAM DIACK, CHRIS FOSTER, PETER FRY

AND LEONARD YOON.

There being no further business, the meeting was adjourned at 2:55 p.m.

OFFICE OF THE BOARD CLERK
for MULTNOMAH COUNTY, OREGON

Deborah L. Bogstad
Deborah L. Bogstad

Thursday, April 28, 1994 - 9:30 AM
Multnomah County Courthouse, Room 602

REGULAR MEETING

Chair Beverly Stein convened the meeting at 9:34 a.m., with Vice-Chair Tanya Collier, Commissioners Sharron Kelley, Gary Hansen and Dan Saltzman present.

INTRODUCTION OF STUDENTS LINDSEY PIMENTEL, ROSIE FERFORT, EMILY CLUGSTON, NIKKI KELLEY, JENNIFER HALL AND MONICA HO, ACCOMPANYING BOARD MEMBERS ON ANNUAL "TAKE YOUR DAUGHTER TO WORK DAY".

UPON MOTION OF COMMISSIONER KELLEY, SECONDED BY COMMISSIONER COLLIER, CONSIDERATION OF THE FOLLOWING ITEM WAS UNANIMOUSLY APPROVED.

NON-DEPARTMENTAL

UC-1 **PROCLAMATION in the Matter of Commemorating the Public Service of Glenn Otto**

COMMISSIONER HANSEN MOVED AND COMMISSIONER COLLIER SECONDED, APPROVAL OF UC-1. COMMISSIONER KELLEY READ PROCLAMATION. PROCLAMATION 94-72 UNANIMOUSLY APPROVED.

CONSENT CALENDAR

UPON MOTION OF COMMISSIONER KELLEY, SECONDED BY COMMISSIONER SALTZMAN, THE CONSENT CALENDAR (ITEMS C-1 THROUGH C-2) WAS UNANIMOUSLY APPROVED.

DEPARTMENT OF ENVIRONMENTAL SERVICES

C-1 **ORDER in the Matter of the Execution of Deed D941005 Upon Complete Performance of a Contract to Heritage Properties, Inc., 1/2 and Gary and Mary Arlene Moberly, 1/2**

ORDER 94-73.

SHERIFF'S OFFICE

- C-2 *Request for Approval of the Transfer of Found/Unclaimed or Unidentified Property List 94-1 to the Department of Environmental Services for Sale or Disposal as Provided Pursuant to Multnomah County Code 7.70*

REGULAR AGENDA

NON-DEPARTMENTAL

- R-1 *RESOLUTION in the Matter of Establishing a Youth Arts Program and a Public Art Youth Steering Committee Through the Percent for Art Fund*

COMMISSIONER HANSEN MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF R-1. ELOISE MACMURRAY EXPLANATION. CHAIR STEIN COMMENTS IN SUPPORT. RESOLUTION 94-74 UNANIMOUSLY APPROVED.

- R-2 *RESOLUTION in the Matter of Approving the Job Training Plan of the Private Industry Council for the Period of July 1, 1994 through June 30, 1996*

COMMISSIONER KELLEY MOVED AND COMMISSIONER COLLIER SECONDED, APPROVAL OF R-2. DENNIS COLE AND GREG WHITE PRESENTATION AND RESPONSE TO BOARD QUESTIONS. RESOLUTION 94-75 UNANIMOUSLY APPROVED.

- R-10 *PROCLAMATION in the Matter of Proclaiming May 1 through May 8, 1994, as COMMUNITY LAW WEEK in Multnomah County, Oregon*

MULTNOMAH BAR ASSOCIATION, YOUNG LAWYERS SECTION PRESIDENT DARIN HONN READ PROCLAMATION. UPON MOTION OF COMMISSIONER SALTZMAN, SECONDED BY COMMISSIONER KELLEY, PROCLAMATION 94-76 WAS UNANIMOUSLY APPROVED.

DEPARTMENT OF COMMUNITY CORRECTIONS

- R-3 *Budget Modification DCC 9 Requesting Authorization to Shift Budgeted Expenditures from Pass Through to Other Internal Service Reimbursement in the Amount of \$128,100, to Pay for 28 Beds at the Courthouse Jail for Parole and Probation Violators, from April 1 through June 30, 1994*

COMMISSIONER KELLEY MOVED AND COMMISSIONER HANSEN SECONDED, APPROVAL OF R-3. CARY HARKAWAY EXPLANATION AND RESPONSE TO BOARD QUESTIONS. BUDGET MODIFICATION UNANIMOUSLY APPROVED.

COMMUNITY AND FAMILY SERVICES DIVISION

- R-4 *Ratification of Intergovernmental Agreement Contract 105034 Between Oregon Children's Services Division and Multnomah County, Wherein the State Will Provide Funding for Care and Services to Level 7 Youth Living in Multnomah County, Effective May 1, 1994 through June 30, 1995*

COMMISSIONER SALTZMAN MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF R-4. JIM EDMONDSON AND JANICE GRATTON EXPLANATION AND RESPONSE TO BOARD QUESTIONS. MR. EDMONDSON, MS. GRATTON AND BOARD ACKNOWLEDGEMENT AND APPRECIATION FOR CONTRIBUTIONS OF PARTICIPATING COMMUNITY AND STAFF. AGREEMENT UNANIMOUSLY APPROVED.

DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-5 *In the Matter of the Appointments of Gregory Abbott, Gregory Ballinger, Stephen Brier, Emily Cohen, Martin Faveluke, David Forman, Francis Gieringer, Sheri Greenbaum, Linda Hutchinson, Marsha Jenkins, Iain Levie, Paul Loney, Jessica Mindlin, Craig Moore, Marsha Morasch, Catherine O'Hearn, Sandra Oster, Mark Potter, Renee Rothauge, Steven Scharfstein, Agnes Sowle, Tommye Spence, Carrie Stilwell, Stuart Sugarman, Kathleen Tesner, Sharon Toncray and Herb Weisser as ANIMAL CONTROL HEARINGS OFFICERS for the Administrative Hearings Program, Pursuant to MCC 8.10.010(H)*

COMMISSIONER COLLIER MOVED AND COMMISSIONER HANSEN SECONDED, APPROVAL OF R-5. DAVE FLAGLER EXPLANATION AND RESPONSE TO BOARD QUESTIONS. APPOINTMENTS UNANIMOUSLY APPROVED.

- R-6 *Ratification of Intergovernmental Agreement Contract 301684 Between the Oregon Department of Transportation and Multnomah County, to Partially Fund the Willamette River Bridges Accessibility Project*

COMMISSIONER COLLIER MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF R-6. KATHY BUSSE EXPLANATION AND RESPONSE TO BOARD QUESTIONS. AGREEMENT UNANIMOUSLY APPROVED.

- R-7 *Ratification of Intergovernmental Agreement Contract 301694 Between Oregon Department of Transportation, Multnomah County and Tri-Met, to Provide Bus Shelters at 25 High Use Locations in East Multnomah County and Bicycle Storage Racks at 9 East Multnomah County Max Stations*

COMMISSIONER SALTZMAN MOVED AND COMMISSIONER COLLIER SECONDED, APPROVAL OF R-7. MS. BUSSE EXPLANATION AND RESPONSE TO BOARD QUESTIONS AND COMMENTS. AGREEMENT UNANIMOUSLY APPROVED.

- R-8 *Ratification of Intergovernmental Agreement Contract 301704 Between the Oregon Department of Transportation and Multnomah County, Providing Federal Aid Safety Grant Funding for Improvements to the Intersection of SE Orient Drive and SE 282nd Avenue*

COMMISSIONER COLLIER MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF R-8. MS. BUSSE EXPLANATION. AGREEMENT UNANIMOUSLY APPROVED.

PUBLIC CONTRACT REVIEW BOARD

(Recess as the Board of County Commissioners and convene as the Public Contract Review Board)

- R-9 *ORDER in the Matter of an Exemption from Public Bidding to Purchase Used Cars for the Sheriff's Office Undercover Operations*

COMMISSIONER KELLEY MOVED AND COMMISSIONER SALTZMAN SECONDED, APPROVAL OF R-9. LARRY AAB EXPLANATION AND RESPONSE TO BOARD QUESTIONS. ORDER 94-77 UNANIMOUSLY APPROVED.

(Recess as the Public Contract Review Board and reconvene as the Board of County Commissioners)

NON-DEPARTMENTAL

- R-11 *RESOLUTION in the Matter of Removing Parcels Commonly Referred to as "A" and "C" of the Edgefield Farm Property from the Real Estate Market for One Year*

COMMISSIONER KELLEY MOVED AND COMMISSIONER COLLIER SECONDED, APPROVAL OF R-11. SHARON TIMKO EXPLANATION. SUE O'HALLORAN TESTIMONY IN SUPPORT OF RESOLUTION AND RESPONSE TO BOARD QUESTIONS. VICE-CHAIR COLLIER ACKNOWLEDGED EFFORTS OF STEERING COMMITTEE, JOAN PASCO AND SHARON TIMKO. COMMISSIONER SALTZMAN MOVED AND COMMISSIONER KELLEY SECONDED, AN AMENDMENT TO PAGE 2, ADDING "FAIR MARKET VALUE SHALL BE DETERMINED BY AN INDEPENDENT APPRAISAL." TO THE LAST SENTENCE. BOARD DISCUSSION. JOHN DuBAY COMMENTS AND RESPONSE TO BOARD QUESTIONS. BOARD DISCUSSION. AT THE SUGGESTION OF CHAIR STEIN, COMMISSIONERS SALTZMAN AND KELLEY WITHDREW THEIR MOTION AND SECOND. COMMISSIONER SALTZMAN MOVED AND COMMISSIONER COLLIER SECONDED, AN AMENDMENT TO PAGE 2, ADDING "REASONABLE MARKET VALUE SHALL BE DETERMINED AFTER AN INDEPENDENT APPRAISAL OF THE FAIR MARKET VALUE OF THE PROPERTY." BOARD COMMENTS. AMENDMENT

UNANIMOUSLY APPROVED. RESOLUTION 94-78
UNANIMOUSLY APPROVED, AS AMENDED.

PUBLIC COMMENT

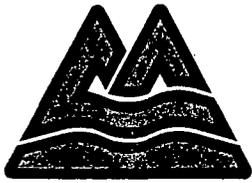
R-12 *Opportunity for Public Comment on Non-Agenda Matters. Testimony Limited to
Three Minutes Per Person.*

There being no further business, the meeting was adjourned at 10:47 a.m.

**OFFICE OF THE BOARD CLERK
for MULTNOMAH COUNTY, OREGON**



Deborah L. Bogstad



MULTNOMAH COUNTY OREGON

OFFICE OF THE BOARD CLERK
SUITE 1510, PORTLAND BUILDING
1120 S.W. FIFTH AVENUE
PORTLAND, OREGON 97204

BOARD OF COUNTY COMMISSIONERS		
BEVERLY STEIN •	CHAIR	• 248-3308
DAN SALTZMAN •	DISTRICT 1	• 248-5220
GARY HANSEN •	DISTRICT 2	• 248-5219
TANYA COLLIER •	DISTRICT 3	• 248-5217
SHARRON KELLEY •	DISTRICT 4	• 248-5213
CLERK'S OFFICE •	248-3277	• 248-5222

AGENDA

MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS

FOR THE WEEK OF

APRIL 25, 1994 - APRIL 29, 1994

- Tuesday, April 26, 1994 - 9:30 AM - Board Briefing Page 2*
- Tuesday, April 26, 1994 - 1:30 PM - Planning Items Page 2*
- Tuesday, April 26, 1994 - 1:30 PM - Board Briefing Page 2*
- Thursday, April 28, 1994 - 9:30 AM - Regular Meeting Page 2*

BUDGET MEETING SCHEDULE ATTACHED

PLEASE NOTE: MAY 26, 1994 MEETING CANCELLED

Thursday Meetings of the Multnomah County Board of Commissioners are taped and can be seen at the following times:

- Thursday, 10:00 PM, Channel 11 for East and West side subscribers*
- Thursday, 10:00 PM, Channel 49 for Columbia Cable (Vancouver) subscribers*
- Friday, 6:00 PM, Channel 30 for Paragon Cable (Multnomah East) subscribers*
- Saturday 12:00 Noon, Channel 21 for East Portland and East County subscribers*

INDIVIDUALS WITH DISABILITIES MAY CALL THE OFFICE OF THE BOARD CLERK AT 248-3277 OR 248-5222, OR MULTNOMAH COUNTY TDD PHONE 248-5040, FOR INFORMATION ON AVAILABLE SERVICES AND ACCESSIBILITY.

Tuesday, April 26, 1994 - 9:30 AM

Multnomah County Courthouse, Room 602

BOARD BRIEFING

- B-1 Briefing on the City of Portland's Approved Budget. Presented by Mayor Vera Katz. 9:30 AM TIME CERTAIN, 30-45 MINUTES REQUESTED.
-

Tuesday, April 26, 1994 - 1:30 PM

Multnomah County Courthouse, Room 602

PLANNING ITEMS

- P-1 CS 2-94 Review the March 30, 1994 Hearings Officer Decision, Approving, Subject to Conditions, a Community Service Designation for the Addition of a Gymnasium and Classroom Building at Alice Ott Middle School, Located at 12500 SE RAMONA STREET, PORTLAND
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-

Thursday, April 28, 1994 - 9:30 AM

Multnomah County Courthouse, Room 602

REGULAR MEETING

CONSENT CALENDAR

DEPARTMENT OF ENVIRONMENTAL SERVICES

- C-1 *ORDER in the Matter of the Execution of Deed D941005 Upon Complete Performance of a Contract to Heritage Properties, Inc., 1/2 and Gary and Mary Arlene Moberly, 1/2*

SHERIFF'S OFFICE

- C-2 *Request for Approval of the Transfer of Found/Unclaimed or Unidentified Property List 94-1 to the Department of Environmental Services for Sale or Disposal as Provided Pursuant to Multnomah County Code 7.70*

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- R-2 *RESOLUTION in the Matter of Approving the Job Training Plan of the Private Industry Council for the Period of July 1, 1994 through June 30, 1996*

DEPARTMENT OF COMMUNITY CORRECTIONS

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PUBLIC CONTRACT REVIEW BOARD

(Recess as the Board of County Commissioners and convene as the Public Contract Review Board)

- R-9 *ORDER in the Matter of an Exemption from Public Bidding to Purchase Used Cars for the Sheriff's Office Undercover Operations*
- (Recess as the Public Contract Review Board and reconvene as the Board of County Commissioners)*

NON-DEPARTMENTAL

- R-10 *PROCLAMATION in the Matter of Proclaiming May 1 through May 8, 1994, as COMMUNITY LAW WEEK in Multnomah County, Oregon. Presented by Laura Takasumi. Followed by Short Break for Board Photo with President of Multnomah Bar Association, Young Lawyers Section. 10:00 AM TIME CERTAIN.*
- R-11 *RESOLUTION in the Matter of Removing Parcels Commonly Referred to as "A" and "C" of the Edgefield Farm Property from the Real Estate Market for One Year*

PUBLIC COMMENT

- R-12 *Opportunity for Public Comment on Non-Agenda Matters. Testimony Limited to Three Minutes Per Person.*

MULTNOMAH COUNTY BUDGET MEETING SCHEDULE

(April 18, 1994 Revision)

<i>Community & Family Services Division (CFS) Work Session</i>	<i>5/3/94</i>	<i>9:00-11:30 am - Board Room +</i>
<i><u>CFS Public Testimony</u></i>	<i><u>5/3/94</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>
<i>Health Department (HD) Work Session</i>	<i>5/4/94</i>	<i>9:00-11:30 am - Board Room</i>
<i><u>HD Public Testimony</u></i>	<i><u>5/4/94</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>
<i><u>*CFS/HD Public Testimony</u></i>	<i><u>5/4/94</u></i>	<i><u>1:30-4:30 pm - Board Room</u></i>
<i><u>Budget 101 Orientation</u></i>	<i><u>5/4/94</u></i>	<i><u>6:00-7:00 pm - Central Library</u></i>
<i><u>Public Hearing/Budget</u></i>	<i><u>5/4/94</u></i>	<i><u>7:00-8:00 pm - Central Library</u></i>
		<i><u>Auditorium, 801 SW 10th, Portland</u></i>
<i>Aging Services Division (ASD) Work Session</i>	<i>5/9/94</i>	<i>10:00-11:30 am - Board Room</i>
<i><u>ASD Public Testimony</u></i>	<i><u>5/9/95</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>
<i>Juvenile Justice Division (JJD) Work Session</i>	<i>5/9/94</i>	<i>1:30-3:00 pm - Board Room</i>
<i><u>JJD Public Testimony</u></i>	<i><u>5/9/94</u></i>	<i><u>3:00-3:30 pm - Board Room</u></i>
<i>District Attorney (DA) Work Session</i>	<i>5/9/94</i>	<i>3:30-4:30 pm - Board Room</i>
<i>Multnomah County Sheriff's Office (MCSO) Work Session</i>	<i>5/10/94</i>	<i>9:00-11:30 am - Board Room</i>
<i><u>MCSO Public Testimony</u></i>	<i><u>5/10/94</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>
<i><u>*ASD/JJD Public Testimony</u></i>	<i><u>5/11/94</u></i>	<i><u>1:30-3:00 pm - Board Room</u></i>
<i><u>*DA/MCSO Public Testimony</u></i>	<i><u>5/13/94</u></i>	<i><u>9:30-12:00 pm - Board Room</u></i>
<i>Department of Environmental Services (DES) Work Session</i>	<i>5/23/94</i>	<i>9:00-11:30 am - Board Room</i>
<i><u>DES Public Testimony</u></i>	<i><u>5/23/94</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>
<i>Department of Community Corrections (DCC) Work Session</i>	<i>5/23/94</i>	<i>1:30-4:30 pm - Board Room</i>
<i><u>DCC Public Testimony</u></i>	<i><u>5/23/94</u></i>	<i><u>4:30-5:00 pm - Board Room</u></i>
<i>DES & Management Support Services (MSS) Work Session</i>	<i>5/24/94</i>	<i>9:00-11:30 am - Board Room</i>
<i><u>DES/MSS Public Testimony</u></i>	<i><u>5/24/94</u></i>	<i><u>11:30-12:00 pm - Board Room</u></i>

MULTNOMAH COUNTY BUDGET MEETING SCHEDULE - continued
(April 18, 1994 Revision)

Department of Library Services (DLS) Work Session	5/31/94	9:00-11:30 am - Board Room
<u>DLS Public Testimony</u>	<u>5/31/94</u>	<u>11:30-12:00 pm - Board Room</u>
<u>*DLS/DES/DCC Public Testimony</u>	<u>5/31/94</u>	<u>1:30-4:30 pm - Board Room</u>
Independent Agencies & Other Government Support Work Session	6/1/94	9:00-11:30 am - Board Room
<u>Ind/Other Public Testimony</u>	<u>6/1/94</u>	<u>11:30-12:00 pm - Board Room</u>
<u>Public Hearing/Budget</u>	<u>6/1/94</u>	<u>7:00-9:00 pm - Council Chambers, Gresham City Hall, 1333 NW Eastman Parkway, Gresham</u>
General Work Session	6/7/94	9:30-12:00 pm - Board Room
<u>Public Hearing/Budget</u>	<u>6/7/94</u>	<u>7:00-9:00 pm - Board Room</u>
General Work Session	6/8/94	9:30-12:00 pm - Board Room
General Work Session	6/14/94	9:30-12:00 pm - Board Room
General Work Session	6/15/94	9:30-12:00 pm - Board Room
<u>Public Hearing/Adopt Budget</u>	<u>6/16/94</u>	<u>9:30-12:00 pm - Board Room</u>

(* Denotes Additional Public Testimony As Needed)

+ Board Room Address:
Multnomah County Courthouse, Room 602
1021 SW Fourth Avenue, Portland, Oregon 97204

Contact the Office of the Board Clerk, 248-3277 or 248-5222
for Further Information



MULTNOMAH COUNTY OREGON

OFFICE OF THE BOARD CLERK
SUITE 1510, PORTLAND BUILDING
1120 S.W. FIFTH AVENUE
PORTLAND, OREGON 97204

BOARD OF COUNTY COMMISSIONERS
BEVERLY STEIN • CHAIR • 248-3308
DAN SALTZMAN • DISTRICT 1 • 248-5220
GARY HANSEN • DISTRICT 2 • 248-5219
TANYA COLLIER • DISTRICT 3 • 248-5217
SHARRON KELLEY • DISTRICT 4 • 248-5213
CLERK'S OFFICE • 248-3277 • 248-5222

SUPPLEMENTAL AGENDA

Thursday, April 28, 1994 - 9:30 AM

Multnomah County Courthouse, Room 602

REGULAR BOARD MEETING

UNANIMOUS CONSENT ITEM

NON-DEPARTMENTAL

*UC-1 PROCLAMATION in the Matter of Commemorating the Public Service of
Glenn Otto*

Meeting Date: APR 26 1994

Agenda No.: B-2

(Above Space for Board Clerk's Use *ONLY*)

AGENDA PLACEMENT FORM

SUBJECT: Briefing

BOARD BRIEFING: Date Requested: April 26, 1994
Amount of Time Needed: 1 Hour Requested/1:45 TIME CERTAIN

REGULAR MEETING: Date Requested: _____
Amount of Time Needed: _____

DEPARTMENT: Nondepartmental DIVISION: County Chair's Office

CONTACT: Sharon Timko TELEPHONE: X-3960
BLDG/ROOM: 106/1410

PERSON(S) MAKING PRESENTATION: Mark Turpel and Stuart Todd, Metro

ACTION REQUESTED:

INFORMATIONAL ONLY POLICY DIRECTION APPROVAL OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if available):

Briefing and Update on Metro's Region 2040 Interim Report and Testimony From
Invited Members of the Multnomah County Planning Commission

BOARD OF
COUNTY COMMISSIONERS
MULTNOMAH COUNTY
OREGON
1994 APR 20 AM 9:13

SIGNATURES REQUIRED:

ELECTED OFFICIAL: Beverly Stein
OR
DEPARTMENT MANAGER: _____

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions? Call the Office of the Board Clerk at 248-3277 or 248-5222.

Meeting Date: APR 26 1994

Agenda No.: _____

(Above Space for Board Clerk's Use *ONLY*)

AGENDA PLACEMENT FORM

SUBJECT: BRIEFING

BOARD BRIEFING: Date Requested: APRIL 26, 1994
 Amount of Time Needed: 1 HOUR REQUESTED

REGULAR MEETING: Date Requested: _____
 Amount of Time Needed: _____

DEPARTMENT: NONDEPARTMENTAL

DIVISION: COUNTY CHAIR'S OFFICE

CONTACT: SHARON TIMKO

TELEPHONE: X-3960
BLDG/ROOM: 106/1410

PERSON(S) MAKING PRESENTATION: JOHN FREGONESE AND DAVID AUSERMAN, METRO

ACTION REQUESTED:

INFORMATIONAL ONLY POLICY DIRECTION APPROVAL OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if available):

BRIEFING AND UPDATE ON METRO'S REGION 2040 INTERIM REPORT AND TESTIMONY FROM INVITED MEMBERS OF THE MULTNOMAH COUNTY PLANNING COMMISSION

BOARD OF
COUNTY COMMISSIONERS
1994 APR 19 AM 11:14
MULTNOMAH COUNTY
OREGON

SIGNATURES REQUIRED:

ELECTED OFFICIAL: Beverly Stein
OR
DEPARTMENT MANAGER: _____

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Good Ideas

- 1) Open spaces, parks, rural areas between communities
- 2) Walkable neighborhoods with shopping, schools, parks
- 3) Invest in city centers so they accommodate growth
- 4) Mixed use on bus & light rail corridors

Transportation Elements

- local street network is a regional priority
- most arterials are multi-modal
 - e.g. pedestrian, bike, transit friendly
- Some are prioritized for freight & auto
- Long distance regional movement
- Some light rail, bus corridors

Land Use Elements

- Centers
 - Central
 - Regional
- Neighborhoods
 - Mixed Use
- Employment Centers
- Corridors & Nodes
- Open Spaces
- Neighboring Communities

Trade-offs

- 1) Reduce average lot size from 10,000 to 7,500 (saves 12,200 acres)
- 2) Increase densities on corridors to 20 units acre, 2 story buildings
(saves 10,000 acres)
- 3) More growth in centers, more redevelopment (saves 13,300 acres)
- 4) Decrease parking spaces (3 spaces per 1,000) (saves 5,000 acres)



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<i>Chapter One - Existing Conditions</i>	<i>5</i>
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Preface

WHAT SHALL IT BE? WE ARE AT A CROSSROADS

In the next fifty years, our region could grow to twice its present size. The Region 2040 project looks at the problems and potentials of actively shaping growth. At the root of this plan are questions like: *How do we grow, what should this growth look like and what are the elements of the region that make people want to live here and how do we preserve them?*

Metro has proposed three regional growth concepts designed to explore a reasonable range of options for the future, in addition to a Base Case, or reference alternative which is intended to show what the region would look like if past land use and transportation policies were continued for the next 50 years. These concepts are models used to explore what consequences might be with differing growth management approaches. The concepts allow the region to explore the ramifications of differing strategies. Do we grow up or out?

The data collected through this process, combined with public input, and extensive review by elected officials and experts will be used to create a growth management strategy for the Metro region that will allow the region to accommodate growth while maintaining our quality of life.

The material included in this Interim Report describes the process, findings to date and the work that still needs to be done. This report is a work in progress - a "readers digest" of a variety of report that have been completed to date. Additional work now being completed will be made available to the public and policymakers in the near future. However, in order to provide interested persons with a compendium of work completed, the Interim Report is offered.

Introduction

This report is intended to provide an account of the Region 2040 effort to date. It is hoped that this effort will provide policymakers and technical staffs with an understanding of past work efforts by serving as a reference document to all of the work completed by the end of 1993. The report will be made available to the public, as requested, but the primary public education documents will be drawn from this basic reference. As further work is completed, this report will also serve as a beginning point for adding descriptions of additional work efforts, especially the decisions to be made about Region 2040.

What is Region 2040?

Region 2040 began as Metro's sole long range planning program. During the development of the Regional Urban Growth Goals and Objectives (RUGGO), there was a concern expressed by transportation planners, land use planners and others that the traditional time horizon, 20 years, did not provide a long enough span to understand basic implications of policies. For example, the urban growth boundary of the metropolitan area is mandated to address the next 20 years of growth. Those providing such services as water and sewer, which have useful lives much greater than 20 years, found service sizing to be difficult in areas adjacent to the present boundary. There was also a feeling that a longer range view could allow exploration of alternative futures which could be translated into the mandated 20 year policy frameworks. Shortly after concluding the need for such an effort, the state mandated that the region increase its time horizon by designating urban reserves, or areas in which the

urban growth boundary could be extended considering the thirty years beyond the twenty year urban growth boundary - fifty years - or to the year 2040.

Given that Metro had concluded a need for a long range planning effort, other equally vital planning requirements were recognized and considerations were made as how work efforts could be coordinated. For example, the Urban Growth Boundary (UGB), originally adopted in 1978, has been periodically reviewed for its capacity to accommodate future growth. The state planning agency, the Land Conservation and Development Commission (LCDC), will require Metro to review the boundary again in 1995. Another state requirement for Metro is to develop an integrated, multi-modal Transportation System Plan (TSP) by May, 1995. This transportation plan must show how the region will reduce per capita auto use by 20 percent and per capita parking by 10 percent by 2020.

Another new policy that the region must respond to is the Clean Air Act of 1990, which places new, stringent rules on the region regarding air pollution and imposes increasingly more onerous sanctions on the region if the standards are violated. Reducing auto emissions, a major contributor of air pollution, through reduced auto use is an important part of the strategy to comply with the Act.

Finally, and most importantly, the Metro Charter adopted by voters in 1992, requires two long range planning efforts including a Future Vision to be adopted by 1995 and a Framework Plan for the entire region by 1997. This plan must be implemented by Metro and the

region's local governments. It is one of the most complex and far reaching set of planning decisions any region has been asked to make.

The Region 2040 process is intended to identify choices and decisions that must be made regarding transportation, land use, air quality, and the effects these choices have on other aspects of our region's livability, such as jobs and the economy, housing, and greenspaces.

Regional Urban Growth Goals and Objectives (RUGGO)

Region 2040 was preceded by the Metro Council's 1991 adoption of the Regional Urban Growth Goals and Objectives. RUGGO is a cooperative effort between Metro and local governments that defines a regional growth management agenda. The adoption of RUGGO set a direction for Metro to follow, helped further define the relationship between local governments and Metro, and illustrates how this essential relationship should work.

The 1992 Metro Charter

Concurrent with the adoption of RUGGO and development of Region 2040, the Metro Charter Committee developed a home rule charter that declares planning to be Metro's prime responsibility. The Metro Charter was passed by the region's voters by nearly a two to one margin in November, 1992.

The Metro Charter requires two major long range planning documents to be developed and maintained, a *Future Vision* and a *Regional Framework Plan*. The Future Vision will be a non-regulatory document that examines the major issues of long term growth and settlement patterns.

The Regional Framework Plan (RFP) will be a planning document that implements the Vision and other policies of Metro. A discussion of their nature is important to understand Region 2040.

Future Vision

The Future Vision is a general description of a regional vision which will encourage detailed and specific planning strategies. The future vision document will be drafted by the Future Vision Commission and adopted by the Metro Council by June, 1995. The vision document will focus on the unchanging characteristics of our area -- our value systems and qualities of our landscape, such as maintenance of our rivers, lakes, neighborhoods, and communities. The Future Vision will explore our resource base, the sustainability of development, and inter-generational equity questions. It will paint the

Metro Charter Excerpts Section 5 Regional Planning Functions

(1) FUTURE VISION.

(a) Adoption. The council shall adopt a Future Vision for the region...

(b) Matters Addressed. The matters addressed by the Future Vision include, but are not limited to: (1) use, restoration and preservation of regional land and natural resources ... (2) how and where to accommodate the population growth for the region while maintaining and desired quality of life ... and (3) how to develop new communities and additions to the existing urban areas in well-planned ways.

(c) Development. The council shall appoint a commission to develop and recommend a proposed Future Vision....

picture of the region in the future, but not necessarily tell us how to get there. The Future Vision will be updated every 15 years to ensure a planning process that evolves with changes in society. This vision will be used in developing the Regional Framework Plan.

Regional Framework Plan (RFP)

In contrast to the Future Vision, the Regional Framework Plan will be a mandatory, specific planning document, meant to influence every local planning program in the region. It will contain a specific list of elements that cover a broad range of regional growth management concerns. While it includes areas where Metro is currently active (e.g., Urban Growth Boundary and Greenspaces), it also will require plan elements in areas new to Metro (e.g., urban design and housing densities).

The Charter requires that local plans and ordinances comply, and that Metro seek state acknowledgment of the RFP. Because it requires updating at least every five years, the RFP process requires

The charter requires that local plans and ordinances comply, and that Metro seek state acknowledgement of the RFP. Because it requires updating at least every five years, the RFP process requires continuous fine tuning to adjust to new conditions and the efficacy of implementation measures. The Metro Policy Advisory Committee (MPAC), the advisory commission to the Metro Council, acts as a liaison to local governments on adoption and implementation of the RFP.

Metro Charter Excerpts Section 5 Regional Planning Functions

(2) Regional Framework Plan

(a) Adoption. The council shall adopt a regional framework plan by December 31, 1997 with the consultation and advice of the Metro Policy Advisory Committee (MPAC)

(b) Matters addressed. The regional framework plan shall address: (1) regional transportation and mass transit systems, (2) management and amendment of the urban growth boundary, (3) protection of lands outside the urban growth boundary for natural resource, future urban or other uses, (4) housing densities, (5) urban design and settlement patterns, (6) parks, open spaces and recreational facilities (7) water sources and storage, (8) coordination, to the extent feasible, of Metro growth management and land use planning policies with those of Clark County, Washington and (9) planning responsibilities mandated by state law. The regional framework plan shall also address other growth management and land use planning matters which the council, with the consultation and advice of the MPAC, determines are of metropolitan concern and will benefit from regional planning. To encourage regional uniformity, the regional framework plan shall also contain model terminology, standards and procedures for local land use decision making ...

(c) Effect. The [Regional Framework Plan] shall: (1) describe its relationship to the Future Vision; (2) comply with applicable statewide planning goals; (3) be subject to compliance acknowledgement by [LCDC] or its successor and (4) be the basis for coordination of local comprehensive plans and implementing regulations.

(e) Implementation. To the maximum extent allowed by law, the council shall adopt ordinances: (1) requiring local comprehensive plans and implementing regulations to comply with the [RFP] within 3 years after [RFP] adoption; (2) requiring the council to adjudicate and determine the consistency of local comprehensive plans...; (3) requiring [local jurisdictions] to make local ... decisions consistent with the [RFP]...; and (4) allowing the council to require changes in local plans to conform with the [RFP].

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The Future Vision outlines the regions' dream - how we want our region to function. The Regional Framework Plan is a specific way to bring our dream into reality.

Summary

The Metro Charter requires a fifty year planning process. A process of this length requires making decisions of varying natures and time frames. The Region 2040 program is designed to coordinate technical work, political decision making, and public involvement. It serves as a bridge between existing regional policy, like the RUGGO and new Charter mandated tasks, such as the Regional Framework Plan. Region 2040 provides the support for the Metro Council's decisions about how to manage the urban growth boundary and to answer the question: "how should we grow"?

Chapter One

Existing Conditions

A Little History

Transportation and land use issues have been a topic of regional discussion and debate for many years. As the use of the automobile increased since the early 1900's, the region has had a growing interest in automobiles and the development of the region. Several organizations established between 1957 and 1970 were designed to address issues that needed to be discussed in a regional forum, such as transportation, water, land use and development.

In 1957, the state legislature established the Metropolitan Planning Commission which became a research organization that provided region-wide data, maps and information to local planners. Other organizations, such as the Columbia Region Association of Governments (CRAG), Tri-county Metropolitan Transportation District (Tri-Met), the Port of Portland, the Unified Sewerage Agency (USA), the Portland Metropolitan Area Local Government Boundary Commission and the Metropolitan Service District were established between 1966 and 1970.

Metro is currently responsible for regional transportation planning and management of the region's urban growth boundary. In addition, Portland metropolitan area voters approved Metro as the official regional planning organization, with a 12 member elected council in May, 1978. Metro integrated the planning responsibilities of CRAG and the regional service functions of the old Metropolitan Service District into one organization.

Public Opinion and Attitudes

Three recent opinion surveys help understand the hopes and fears of citizens about our region. The surveys are: "*Telephone Survey for Region 2040*", completed by Decision Sciences April, 1992 for Metro, "*1992 Oregon Values and Beliefs Study, Transit and Growth Management Findings*", prepared by Decision Sciences for Tri-Met (in conjunction with a larger survey completed by the Oregon Business Council) and "*Citi-Speak, A Community Attitude Survey*", completed by Western Attitudes September, 1993. Full texts of these are available from Metro or the sponsoring agency (also see chapter five for more details).

Common themes voiced in the "*Telephone Survey*" included: 1) transportation concerns as the primary concern (within this category, the largest number of respondents favored transit solutions, while the next largest group favored major road improvements); 2) public safety issues ranked second, particularly concerns about crime; 3) growth concerns (too many people, etc.) was next, while land use concerns (urban sprawl, poor planning) was rated fourth highest. Peoples' likes about the region included: 1) accessibility (to jobs, housing recreation, etc.); 2) an uncrowded feeling /the region is not too big of an urban area; 3) a high sense of community and 4) appreciation of the natural beauty of the region.

The "1992 Oregon Values" survey showed that Metro area residents highly valued the natural beauty of the region and the State, felt that additional growth is inevitable and were concerned with the impacts that growth may have. However, they were widely split as to the appropriate approach to address these problems. About 37 percent favored a growth management strategy of directing the bulk of growth to existing cities and maintaining the environmental quality. The balance of the respondents either had concerns with concentrating growth or trading environmental quality for a strong economy.

The "Citi-Speak" survey directly asked participants about how they would like to see the existing Urban Growth Boundary managed. Thirty six (36) percent of the respondents favored expansion of the urban growth boundary, 34 percent favored holding the boundary and 28 percent either were undecided (2 percent had other responses). As there is a margin of error of about 5 percent for this survey, it appears that sentiment to move or retain the boundary is about evenly split. No clear consensus now exists, although strong convictions are very much present.

Existing Population

According to the 1990 Census approximately 1,033,000 people live within the UGB. Seventy-two percent of the people living within the UGB live within incorporated cities and twenty-eight percent live in unincorporated urban counties.

The population of the Portland Metropolitan Statistical Area (PMSA) is increasing. Between 1970 and 1990 the region grew by 320,000. There was a 20 percent net population increase between 1970 - 1980 and a 12 percent net population increase between 1980-1990.

The 1990 Census indicates that approximately 75 percent of the Portland metropolitan populace is over 18. In 1985, 12.1 percent of the population was older than 65 and 29 percent was over 45. In addition, the region is becoming more racially diverse. The 1990 Census indicates that 90.7 percent of the population are white, 3.1 percent are black, 1 percent are Native American, 3.7 percent are Asian/Pacific Islander, and 3.5 percent of the population is of Hispanic origin.

Housing

Presently, there are over 512,000 housing units in the PMSA. The existing population density within the UGB is 2,869 people per square mile. In 1988 and 1989, 22,910 units were added to the housing stock. A 1991 summary of reported land use inventories of buildable land states that within the UGB there is a total of 32,313 buildable acres available for residential use.

Employment and Income

The region has a workforce of approximately 660,000 people. Between 1988 and 1989 the workforce reportedly increased by 3.7 percent (25,000 workers). Workers represent a diverse number of occupations. The 1990 per capita income for the PMSA was \$16,837.

Percentage of Workers in Major Occupation Categories

Managerial and Professional	27.8
Technical, Sales and Admin Support	32.1
Service	12.6
Farm, Forestry, and Fishing	2.3
Precision Production, Craft, Repair	10.5
Operators, Laborers	14.2

Greenspaces

The 1992 study, Metropolitan Greenspaces Program Data Analysis, reported that 29 percent of the 372,682 acres in the Portland Metropolitan region are considered *natural areas*. Only about 8.5 percent of these natural areas are publicly owned parks or currently protected as open space. Metro's greenspace program's responsibility is the long term protection of the natural areas that give character and diversity to the region. The intent of the greenspace program is to balance an urban landscape with wildlife habitat in the midst of a flourishing cosmopolitan region.

Transportation Systems

The Regional Transportation Plan (RTP), originally adopted by Metro Council in 1982 and most recently updated in January 1993, is the existing guide for how to meet regional transportation needs over the next two decades. The 24 cities, three counties, Metro, Tri-Met, the Oregon Department of Transportation, the Port of Portland, the Federal Highway Administration, and the Federal Transit Administration are involved in the planning, funding, ownership and/or operation of the system. The overall goal of the RTP is to develop a transportation system that provides adequate levels of mobility to a growing region while recognizing the associated financial and environmental impacts.

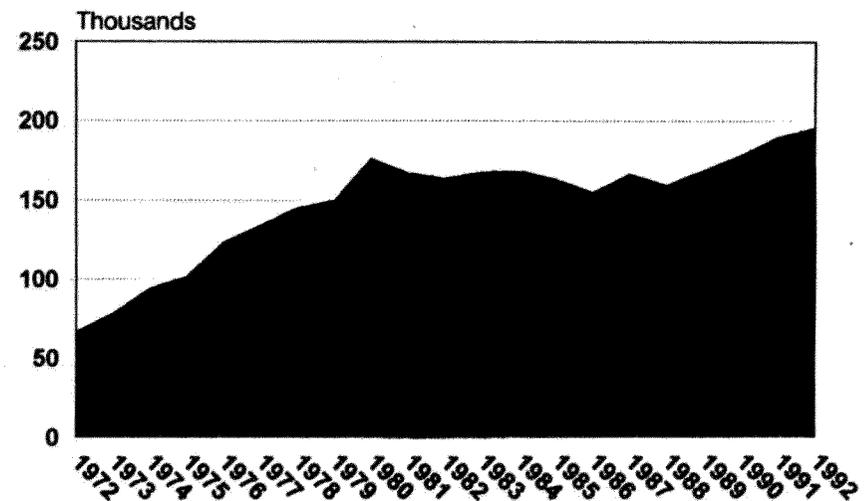
Roads/Transit

As with many other growing metropolitan areas in the 1920's, the region shifted from a rail-oriented to an automobile-oriented transportation system. Large sums of public funds were spent on roads and highways and there was a decrease in the patronage of the private mass transportation. The region's cooperative transportation planning efforts, beginning in 1959, focussed on a highway system to serve the rapidly growing demand for auto travel.

Tri-Met was formed in 1969 when the State Legislature provided for public takeover of the faltering privately-owned transit system. Tri-Met's primary system provides bus service designed to serve a wide variety of trip destinations, purposes and times of day.

In the 1970's, a multi-modal improvement policy was developed to encourage the most cost effective combination of highway and transit improvements. The decision to build a light rail transit system in the Banfield corridor occurred in 1978, followed by the selection of the West Side light rail line in 1983, with a commitment to a south/north (Clackamas County to Clark County) system as the next priority. After a period of declining patronage in the early to mid-1980s, Tri-Met's ridership has increased since 1989.

Transit Ridership 1971 to 1992



Tri-Met Average Weekday Boarding Rides

In 1971, the Oregon Legislature enacted the 'Bicycle Bill' which mandated the expenditure of not less than 1 percent of the State Highway Fund (gasoline tax revenues, registrations, p.u.c., etc.) received each year for the establishment of bicycle trails and footpaths. The legislation has resulted in the completion of over 70 miles of bicycle routes in the region. In addition, another 70 miles of bicycle routes have been constructed since Metro's Regional Bicycle Plan was adopted.

The UGB / UGA

The Urban Growth Boundary (UGB) for the Oregon portion of the metropolitan area regional was adopted in December 1979 by Metro. This boundary, mandated by Senate Bill 100, the state regulation defining land use requirements for cities, counties and Metro, was intended to define the boundary between urban and rural uses and was to include enough buildable land to accommodate the next 20 years of expected urban growth.

Similarly, Washington State's 1991 Growth Management Act required that the fast growing counties of the state must adopt Urban Growth Area (UGA). Pursuant to this act, Clark County has adopted a Framework Plan specifying and is rapidly moving to adopt UGA's. Washington State in 1991 and defines a similar separation between rural and urban lands in Clark County. The UGA has been proposed and is in the process of being adopted.

Chapter Two

Population and Employment Projections

2040 Context

Population and employment forecasts for the Region 2040 Project are the starting place for modeling and designing future urban form alternatives. How and where these people are accommodated will have a great influence on regional form and our region's livability.

Projecting population and employment for fifty years is at best an inexact science. There are so many variables that a very wide range of numbers are equally justifiable. Because of this, multiple projections are often used to determine how varying growth rates would change the decisions required in a plan. However, in order to have a common point of discussion, the Region 2040 project has used one set of population and employment projections, with the understanding that there is a wide amount of potential variance. Our task was to pick a reasonable projection, one that was plausible and large enough to test the robustness of any concept for growth.

To do this, several growth scenarios were examined. These scenarios used differing assumptions for fertility, mortality, and net migration rates. Using nine different migration scenarios and two different fertility and mortality rates, Metro simulated 36 different forecasts for the year 2040 and chose a mid-range projection.

The forecasting included employment totals but not an economic forecast. Assumptions regarding changes in the economic conditions can be so varied that they were considered untenable. The employment figures are tied to the population base and show ex

pected changes in major sector employment totals, but they are independent of specific economic projections or work trends.

Methodology

A basic choice was made early in the projection process. That choice was between an economically driven projection or a demographically driven projection. Most transportation and land use planning projections are driven by assumptions about and information concerning the likely trends in employment. However, given the fact that Metro was trying to estimate what trends might be for 50 years, it appeared that a forecast based on what we may infer about people may be easier than trying to guess what types of jobs people may have.

Accordingly, the various population projections represent trends in fertility and mortality rates, as well as trends for net migration to the area. The variations considered for these trends are summarized below. They are divided into fertility rates, mortality rates and migration rates.

Population Trend Variation Summary

Fertility	Existing	Levels in 2040	
		Stable	Increased
Lifetime children/woman	1.8	1.8	2.0
Mortality	Existing	Levels in 2040	
		Moderate	High
Life expectancy at birth			
Males	73	73.1	75.9
Females	79	80.3	82.8
Net Migration	Average 5-year Rates		
	1990-2010	2010-2040	1990-2040
Scenario 1	43,900	44,500	44,300
Scenario 2	49,900	59,700	55,800
Scenario 3	67,400	60,200	63,100
Scenario 4	73,800	74,900	74,500
Scenario 5	76,500	72,000	73,800
Scenario 6	83,100	71,700	76,400
Scenario 7	89,800	71,600	78,800
Scenario 8	96,200	80,100	86,600
Scenario 9	104,800	92,400	97,400

The fertility and mortality rates compare initial 1990 rates against two potential future rates. The migration rates show early and late migration averages for the fifty year period, as well as an overall migration average.

Fertility Rates

The fertility rates reflect the total number of children born on average to each woman over her lifetime. The current trend of 1.8 represents the region's average in the late 1980's. Of note, the "replacement rate" to achieve a "zero-growth" population is 2.1. There is uncertainty about what current rates represent. They may represent falling birth rates or delayed childbearing trends. The two rates adopted in the projections, 1.8 and 2.0, represent two assumptions. The 1.8 rate assumes a continuing mild decline in birth rates compensated by immigration of populations with higher childbearing rates. The 2.0 rate assumes delayed childbearing (as evident in the baby boom generation) together with immigration of populations with higher childbearing rates.

Mortality Rates

Mortality rates are considered relatively stable demographic forces. The change in rate between 1990 and 2040 is a linear projection. The middle mortality rate (the higher one in this study) is the most commonly accepted in national trend projections which have been projected to the year 2080. The lower moderate rate was used in this study to examine the possible impact of immigrants with lower life expectancies.

Net Migration

Age and gender profiles of people moving within the U.S. have remained relatively constant in recent times, showing the greatest tendency for migration by persons in their twenties, often accompanied by young children. Annual net migration, however, has been volatile. This study relied on three migration indicators: historical experience, capture rate (the percentage of total migration in the United States that was captured by the Metro area), and absorption capacity. Historical data allows derivation of five year averages showing an average net migration of 60,120 persons per five year period since 1960. The capture rate also shows variability, but less than historical migration rates. The capture rate for our region has varied from between 0.16 percent to 1.2 percent. The average for a five year period was between 40,000 and 105,000 with an average long-term experience of between 60,000 to 74,000 persons.

There are generally accepted drivers of migration, which include at least tax rates, the level of economic health and quality of life. Scenarios were constructed to address three broad categories - accelerating growth, steady-state growth, and declining growth.

Method

The basic formula used in the different projections is:

Total Population = present population + natural increase + net migration

Where:

Natural Increase = births - deaths
and

Net Migration = immigration - emigration

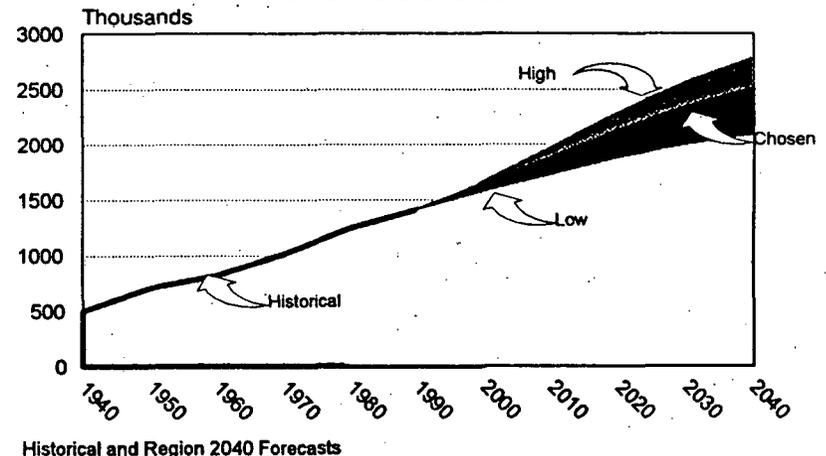
The population is segmented in cohorts (persons in 5-year age brackets, stratified by gender). Fertility/mortality rates and migration rates are applied to each cohort to determine the sum population.

Scenarios

When, the mortality/fertility rates were combined with the net migration rates, 36 different population scenarios were produced. The result was four population projections for each migration scenario.

The following chart shows some of the range of projections from a low of 2 million to a high of 2.8 million persons. The range was derived from each of the nine scenarios, each with four sub-variations, dependent on mortality and fertility rates. The number Metro is using as a control total in the Region 2040 study is 2,507,600.

Region 2040 Population Forecasts



Scenario Choice

Metro selected a mid-range population projection that reflected middle fertility/mortality rates and a mid-range growth scenario. This number of 2,507,602 is between a projected high of 2,818,000 and a low of 2,015,000 persons. Metro chose a mid-range number to avoid either extreme. The mid-range number does not split the high and low, rather it is a number attached to a specific growth scenario projection with specific assumptions for age, immigration and timing characteristics. It is a number that uses the slightly higher and more accepted trends for birth and death rates.

This mid-level scenario population total is *not presented as a forecasted projection*, rather it is chosen as a constant for this study. It must be remembered that there is an equal likelihood that there could be as many as 300,000 more people coming to the metropolitan area in the year 2040 as 400,000 fewer. The detailed planning that must come after the Region 2040 decision should carefully analyze implementation strategies with respect to growth variability.

The following table from the Demographic Scenarios report shows the population change in five year increments for the chosen scenario.

Year	Births	Deaths	Net Migration	Change	Population
1990					1412344
1995	103096	61077	72100	114119	1526465
2000	102817	65235	75924	113506	1639969
2005	107595	69804	78457	116248	1756221
2010	116029	74261	79697	121465	1877687
2015	123857	79460	79644	124041	2001730
2020	128482	86598	78300	120184	2121913
2025	131177	95956	75663	110884	2232798
2030	134651	106718	71734	99667	2332466
2035	140051	115799	66513	90765	2423230
2040	146169	121797	60000	84372	2507602

Employment

The employment projection linked *resident* and *establishment* employment for the study area and combined two sources of data - the Metro population projections and the Bureau of Economic Analysis (BEA) industry projections. *Resident employment* represents the employed work force residing in the four county area, while establishment employment is the actual number of jobs in the area.

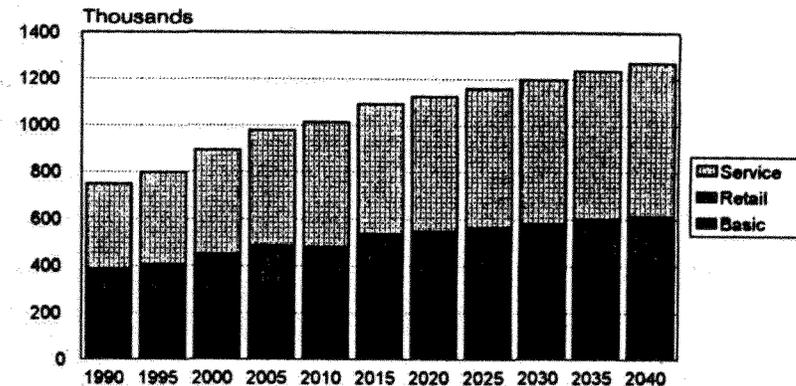
Resident employment is defined as that portion of the total population which is 16 years and older and which is not institutionally employed (in the military, prison or otherwise). The non-institutional population share has historically remained steady and for this reason is used as a base assumption. The non-institutional population is multiplied by a labor force participation rate to project the civilian labor force. The civilian labor force is multiplied by the employment rate to forecast the number of employed residents.

The projection of the labor force participation rate is dependent on the stratified age/gender breakdowns associated with a growth scenario (net migration). Age and gender labor force participation rates can be tied to long term trends. The employment rate used was also a "long term" rate, one considered stable (a low unemployment rate).

The BEA breaks out establishment employment projections to 2040 by industry divisions. These BEA projections were used by Metro to arrive at aggregated major employment sector shares in the labor force. To arrive at specific employment numbers, Metro had to consider any difference between "resident" and "establishment" employment totals - the difference being in-bound commuters. This factor was negligible for the four county area. Resident employment was equated with establishment employment for the purpose of these long term forecasts, and the proportional employment sector shares were applied to the employment totals. The following table shows the employment totals used for the growth allocation model by sector to 2040.

Regional Employment Growth

By Employment Type



Additional Population/Employment Considerations

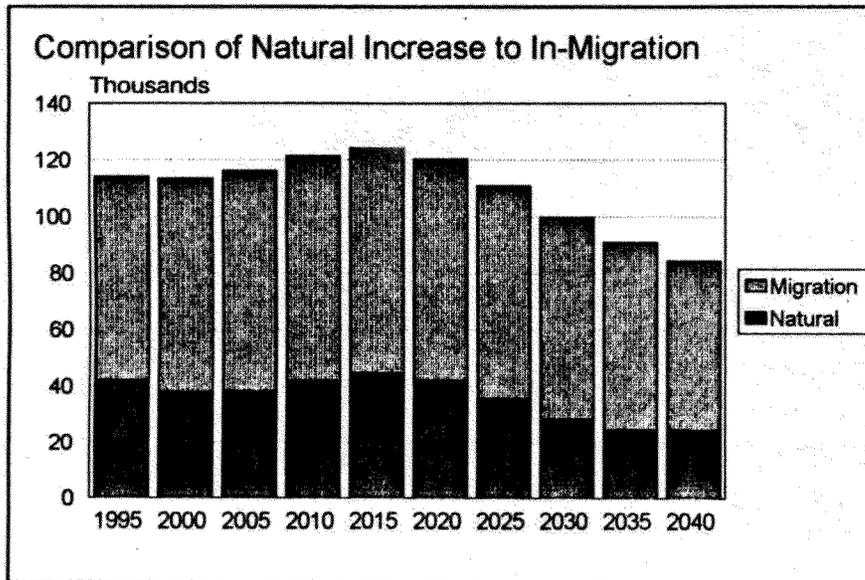
Rate of Growth

Growth can be sporadic rather than uniform. Knowing this, the impact of growth on urban form is largely a function of timing and phasing. The significance of the population change can be secondary to how the people and jobs locate during this time and what measures are in place at the time of largest growth.

The economic picture of the U.S. and the Northwest will influence growth in the our region. The accuracy and timing of the growth rate projections will vary over this time period due to these larger national and regional trends.

In-Migration and Natural Increase

As noted earlier, growth projections are subject to many variables any one of which can substantially change the projection. Natural increase (the difference between local births and deaths) is actually less than the amount that would be needed to keep a constant amount of population in the area. In-migration to the region is projected to be greater than natural increase (see chart below).



One issue that has been raised by some citizens relates to why should the region accept all or most of the in-migration, on the assumption that growth is a burden on existing residents. An analysis of this no or slow growth issue is underway, but not a part of this report.

Changes in Ethnicity and Age

By 2040 the expected population in the age range 64+ will increase from its current 13% level to 16% in 2015 and 24% in 2040 - *becoming similar to Florida today*. In 2040, a shrinking labor force and higher elderly population will probably lead to changes in housing choice and economic needs. The expected trend for this older age bracket would be greater dependency on people and services, similar to the needs of that population today. When this percentage of the population almost doubles, the need for centralized, affordable and accessible living will increase. The need for transportation other than the private automobile takes on social, as well as air quality needs.

If the ethnicity percentages increase, as they have in the past ten years, a phenomena of choice related to cultural values in cities may be forthcoming. The asian population has doubled in the last ten years (from 2% to 4% of the total population), and the hispanic population has increased by half (from 2% to 3% of the total population). Because these segments of the population are much smaller than in other states, it is uncertain whether the region can expect the significant cultural impact felt from these groups elsewhere today. However, even today, concentrations of ethnic groups are beginning to influence the characters of some neighborhoods, in the increased availability of ethnic foods and goods to residents and visitors alike.

With the increased migration of ethnic groups, and the natural increase of resident ethnic groups, it is likely that areas will emerge with concentrations of ethnic populations that support specialized retail and service businesses. Many times, differing cultural backgrounds can affect urban form, especially if they have different preferences for housing types (for example those who have housing needs for an extended family) or preferences for land use patterns.

Conclusion

One million additional people and another 500,000 jobs describes the magnitude of possible change by the year 2040. Characterizing demography or employment with exactness is largely going to be left to future efforts, to the trends of the time, to the opportunities and mechanisms that affect people's choices and decisions in times of expansion or recessions.

The population and employment projections adopted by Metro for Region 2040 are for the growth allocation modeling process, to provide a common base for comparison of concepts.

However, we must recognize that this set of population and employment projections are one of a number of scenarios, each one of which is equally probable. This forecast is useful for comparing growth concepts. Future planning efforts, especially the Regional Framework Plan, must evaluate forecast uncertainties in light of any policies proposed.

Chapter Three

Base Case

Four growth concepts were examined during Region 2040. These concepts proposed different types and patterns of regional growth. The Base Case was an approach where current trends were projected to the year 2040. There were also three conceptual growth scenarios (Concepts A, B and C) that examined differing land use and transportation options. The results gained from these four concepts include the issues and constraints that the region faces in dealing with growth over the next fifty years. In the near future, the lessons learned from the analysis of the concepts will be combined with the vision document and public comments to produce a new growth management strategy.

Base Case

In response to comments received during the earliest Region 2040 efforts, the Metro Council directed staff to prepare a "Base Case". The Base Case was intended to illustrate what the region might look like if past land use policies and practices were unchanged in the face of additional growth to the year 2040. The purpose of the Base Case was to test if and when current plans would fail to meet the region's expectations, given that the Metro area is one of the most planned and regulated metropolitan areas of the nation. In addition, the Base Case was not intended to be designed to meet new state and federal policies concerning transportation, land use and air quality. The Base Case would illustrate how close or far present policies might be from these policies.

Several versions of the Base Case were constructed and analyzed by land use and transportation models. The first runs were

internal staff versions used to understand basic model implications and parameters. The first published run, Base Case I, was reviewed by the User's Group (a group of local technical advisors from many jurisdictions and agencies within the region). Based on responses from the User's Group, some assumptions and some of the modeling techniques were modified. The result was three versions of Base Case II - one with new freeway improvements, one with only improvements to arterials, and one which made assumptions about and allocated some of the growth to redevelopment in some inner city areas. The version which assumes freeway improvements has been used as the reference point, as it appears to most closely match the patterns of land use development and transportation improvements of the past 20 years.

Base Case Assumptions Summary

Base Case II modeled past policies and practices. The model run employed the mid-range growth scenario of 1.1 million additional people in the region, as discussed earlier. The requirement for a rolling 20 year buildable land supply within the urban growth boundary (UGB) was assumed to continue as was a 10 percent underbuild of comprehensive plan densities. The UGB was assumed to expand along major transportation routes, with the highest priority assigned to lands designated as exception lands and easily served by sanitary sewer systems. The transportation facility improvements assumptions included freeway and arterial improvements to be staged, first to complete the 2010 Regional Transportation Plan (RTP). The second stage was assumed to

include the proposed new freeways (the Westside Bypass, The Sunrise Corridor and the Mt. Hood Parkway). The third stage was assumed to improve the most congested existing roadways in the region. Light rail lines were assumed to be added every ten years, consistent with past practice.

Policy Assumptions

Oregon land use law requires maintaining a rolling (continuous) 20-year buildable land supply to meet the projected needs of the region. In Base Case II, the 20-year forecasted acreage supply was based on historic land supply assumptions and underbuild practices.

The land supply inside the UGB (and the preliminary UGA's in Clark County) was assumed to be all developable vacant acres as determined by the RLIS vacant lands database, and adjusted (reduced) to account for floodplains, lands over 30 percent slope, wetlands, parks and dedicated open space. Metro Greenspaces were assumed to be developable, unless currently protected by existing comprehensive plans.

The buildable land inventory defined above was assumed to be available (at least over a 20 year period) and developed according to its current plan designation.

Redevelopment in Base Case II was assumed to approximate replacement rate of existing densities. That is, on average nothing will be built at higher than existing densities and redevelopment would not provide any additional development or growth capacity.

In the Base Case certain assumptions were also made about what portion of the buildable would actually be made available for development. Gross to net acreage reductions were assumed for the percentage of land to be lost to construction of streets, public facilities, and preservation of open space for land inside the UGB.

The resulting vacant acreage was further reduced to account for lands lost to other public uses.

Density limits on development of net acres was set at 90 percent of comprehensive plan density. This density limit reflects what has come to be called the "underbuild" factor.

Once the assumptions about the area inside the current urban growth boundary were completed, the assumptions about how the boundary would be moved were designed for the Base Case. It was assumed that the urban growth boundaries would be expanded along major transportation routes according to the following criteria: 1) land is added through a series of passes of the ex-urban land (land just outside the current urban growth boundary) data base. The first pass extends the UGB/UGA one mile out, 1/2 mile wide, along freeways and major arterial. Each pass increases the distance/width, and adds new criteria (land type, sewer priority). By the tenth pass the boundaries have extended outward three miles and are 1 1/2 miles wide, with Exclusive Farm Use (EFU) lands avoided where possible, but in some areas assumed to be included eventually.

Developable vacant acres used by the model were determined as follows: Rural lands were sampled and percentages *by county* were developed for the percentage of land in roadways, and for the percentage of land already in use and not available for development. The percentages were summed and used to create an overall reduction factor for rural vacant land by county. The lands left were then subject to the same constraints as land inside the UGB. What was left was the developable vacant land outside the current UGB/UGA. The developable vacant land was then subject to a 70 percent gross-to-net acreage reduction, similar to that applied within the UGB/UGA for most vacant land.

Land assumed to be brought into the urban land supply was considered in two categories. Residential lands were assumed to be able to accommodate a density equal to the weighted average for urbanized zones less the underbuild factor. Employment was allocated based on the total employment land in ex-UGB and Rural/EUC categories.

Employment capacity both inside the current UGB/UGA was more difficult to approximate than residential development. Comprehensive plans do not specify employment densities. Therefore, employment densities were derived from current employment density data of various employment areas throughout the region.

The mode split targets for Base Case II were taken from the RTP. They are as follows: transit to the central business district (CBD) 30 percent, transit to the rest of the region 1.5 percent; bike/walk at 5 percent region wide. This equates to a 3.5 percent regional average split, the RTP seeks to expand this to 4.5 percent after 2005.

The Base Case - Summary of the results.

One of the most remarkable results from the Base Case analysis is the amount of land consumed for urban purposes if land is brought into the UGB as it has in the past. Our current urban Growth Boundary contains about 225,000 acres of land. Current state law requires UGB's to accommodate 20 years of growth. Traditionally, it was assumed this would be done by adding vacant land at the edge to the urban area. Therefore, if present policies are not changed, we would have to begin adding land to the boundary in 1995. Our needs for developable land would be about 22,000 acres for the following ten years.

However, the land at the edge of the current boundary is not all suitable for urbanization. Some is too steep, subject to flooding, or has other constraints to development. Also, about one third of the land is already developed, albeit at low density. This land will

probably not be conducive to urban conversion in the short term. So to get 22,000 acres of buildable land, it may be necessary to add as much as 47,000 acres to the UGB.

In the year 2040, the region (including Clark County) would have grown by 160,000 acres. This would mean that the urbanized area would virtually extend from Newberg in the south to Battleground, Washington in the north, and from North Plains in the east to Sandy in the west.

Within the UGB for the Base Case, things would change as well. Preliminary indications are that congestion will increase by over 300 percent, even assuming 5 billion dollars of freeway and highway improvements and four new light rail lines. About 55% of the growth would be in the current UGB, and that means that virtually all vacant land that is not prohibited from development by public ownership or floodplain regulations would be built on. For example, the Base Case showed private land surrounding Forest Park growing from 1,100 households to about 8,000. The area that includes the City of Sherwood would grow from 1,400 households to 9,800. The Happy Valley area would grow from 5,400 households to 12,500. With few current programs to preserve greenspaces in parks and open space, most of those that are buildable would be developed.

The Base Case shows 54 percent of the household allocation going to land inside the UGB/UGA, 42 percent to land added to the UGB, and 4 percent to Rural locations. The employment allocation is 76 percent inside the UGB/UGA, 19 percent to new UGB land, and 5 percent to Rural locations.

The household density figures reveal differences in the amount of vacant developable land remaining in the year 2040 for the three land areas (UGB/UGA, New UGB, and Rural). The current UGB/UGA would have virtually no vacant developable land left, while the new UGB or Rural areas would have considerable serviced land still

available. Rough estimates indicate 40 percent of the net developable land in the Ex-UGB area would remain available in 2040, and 70 percent of net developable land in the Rural/EUC would be still available in the year 2040 while 70 percent of net developable land in the Rural/EUC would still be projected to be available in 2040.

Base Case - Transportation Summary

Assuming completion of the RTP by the year 2010, roadway congestion in the pm 1-hr peak would more than triple in both the freeway and arterial runs. Adding capacity where needed would keep congestion fairly constant for the 25 year period from 2015 to 2040. The forecasted increase in congestion is partially attributable to having a limit on the amount of capacity that can be added. As congestion levels increase, the average regional speed decreases through the years.

Average weekday VMT was found to continue to rise over the years. This figure includes both commercial and external trips. In addition, from 2015 to 2040, average trip length began to rise slightly due to improved accessibility. As congestion increased in the system from 2015 to 2040, average travel time during the pm 1-hr peak began to increase.

All versions of the Base Case completed improvement projects on a schedule consistent with the assumptions in the Scenario Description. For the Freeway Base Case, the RTP was completed in 2010 followed by two phases of freeway improvements completed in 2015 and 2025, with volume/capacity improvements to 2040. The Arterial Base Case II similarly finished the RTP in 2010 with arterial additions completed in lieu of the freeways in 2015 and additional capacity improvements for freeways and arterials through 2040.

Base Case Acreage Totals

Acres added in EX-UGB area (expanding the UGB)

Net Acres Added (needed for development)
74,773

Gross Acres Added (This accounts for occupied land in Ex-UGB, unbuildable) 159,959

Oregon Side, Gross Acres Added	111,856
Clark Side, Gross Acres Added	38,093
EUCs only	23,000
Rural only	6,541

Allocation by year

95-05	47,365
05-15	38,914
15-25	27,741
25-35	20,985
35-45	24,954

Total 159,959

Households in:	HH's added	HH acres allocated	HH/acre
UGB/UGA	293,357	34,683	8.5
Ex-UGB	229,523	54,404	4.2
Rural/EUC	24,225	11,872	2.0

Employment in:	Employees added	Emp. acres allocated	Employment density
UGB/UGA	399,166	21,957	18.2
Ex-UGB	97,201	5,639	7.2
Rural/EUC	25,793	1,177	21.9

Several freeways and arterials were not improved due to the constraints in the Base Case assumption limiting arterials to five or seven lanes, and freeways to six lanes plus auxiliary lanes. In the Freeway Base Case, the links that were already at capacity, comprised 76 freeway lane miles and 443 arterial lane miles. In the Arterial Base Case, the number of similarly constrained links was 88 freeway lane miles and 467 arterial lane miles.

Base Case Conclusion

While the Base Case shows how the region might change, we don't have to accept all of it as our inevitable future. It is a place to start. The Base Case shows us where some of the problems may be and it gives us a better idea about where to apply our efforts to solve them.

Chapter Four

Concepts A, B and C

Concept Genesis

Although the regional growth concepts did not spring directly from the information gathered by the random sample opinion surveys (see Chapter Five), the growth concepts were intended to generally reflect known concerns. As some people were concerned with having more dense development and preferred the auto as the primary mode of transportation, one concept was designed to expand the urban growth boundary, provide for a less dense development pattern and rely more heavily on the auto for transportation. Other members of the public were concerned with expanding into rural areas and desired more transit service. Accordingly, another concept provides for growth by more efficient use of land and more emphasis on transit. A third concept suggested by officials of Clackamas County was to accommodate a portion of growth in satellite communities and a concept was crafted to analyze this approach.

Regardless, urban growth boundary options are relatively few: move it, don't move it; get rid of it. There does not seem to be a significant interest in the region favoring getting rid of the boundary, so the basic choice of "up or out" was a necessary feature of the decision about the region's future. (another option, no growth, was proposed by some during public meetings. See Chapter Six)

A concern was voiced about what to call the growth concepts. Titles proposed to describe the concepts could be construed to be biasing the public and in order to be neutral about the concepts, the unimaginative, but impartial titles of A, B and C were chosen.

Urban Design Features of Concepts A, B and C

Concepts A, B and C have many common design features and mapping conventions. The following is a description of these common elements.

The Sunrise Corridor in Clackamas County, the Western Bypass in Washington County, and the Mt. Hood Parkway are all proposed limited access freeways now being considered. These were included in transportation modeling of A and C, but not in B. Concept B assumed arterial improvements in lieu of the freeways. The transportation impacts and land use implications of freeway versus arterial improvements will be analyzed so that any growth concept could consider these improvements as elements of a regional road network.

Arterials provide corridors for autos, trucks, transit, bicycles, and pedestrians. They form boundaries to neighborhoods. Arterial improvements are included as needed to address congestion problems forecast by Metro's computer transportation model. These improvements are limited under the same set of assumptions described in the Base Case with regard to the total number of lanes that can be added and the financing assumptions.

High Capacity Transit (HCT) lines are a crucial transportation and important design feature. High capacity transit means either light rail, such as the MAX line from Gresham to Portland, or high quality bus service along dedicated rights of way. The most recent survey data from Metro indicates that 90 percent of the riders on

MAX walk as much as one half mile to the train station. In contrast, a transit corridor is a route with frequent bus service -- six times per hour in the peak period. While HCT serves as the transit system's backbone, most of the ridership in the transit system today and in the future is likely to continue to be on bus routes.

The regional bikeways system is also included in the concepts. This system is supplemented by local bikeways that link the regional system with local employment, housing and shopping areas. A safe, continuous bike system plays a differing but substantial role in each of the growth concepts.

One of the fundamental, but overlooked transportation modes is walking. Pedestrian paths, sidewalks, etc., are assumed to be made ubiquitous in the vast majority of the urban area. The "friendliness" of the pedestrian environment (existence of sidewalks, lack of steep topography, narrowness of street crossings, etc.) is one critical aspect of measuring pedestrian travel behavior in various parts of the Metro area.

Other ways to manage transportation needs are by techniques included within the term Transportation Demand Management. Techniques such as congestion management, high occupancy vehicle lanes, parking costs and other methods to reduce transportation demand at peak times are included in the growth concepts as noted.

Concepts A, B and C also strive to decrease vehicle miles traveled (VMT) per capita to meet the intent of the Ruggo, Federal air quality standards, and the state's Transportation Goal 12. This contrasts with the Base Case which is not constrained by this goal.

There are no assumptions made about many types of major transportation changes - such as additional airports or removal of current airports that could change land supply. No major additions to Portland or facilities are assumed. Additionally, there are no special considerations for high speed rail.

Plans for the Portland metropolitan region from the turn of the century through the 40's and 50's were built on a neighborhood building block bound by major through streets and with a school and a park near the center. Both new and existing neighborhoods are assumed to be designed around this concept, to provide clear neighborhood boundaries and a central focus, generally a park. Neighborhoods generally have been assumed to have convenient services, such as grocery stores and other retail, located within or on the boundary of the neighborhood

Small centers supporting surrounding neighborhoods are assumed to be developed to provide local services and connections to regional transit. They are assumed to be accessible to pedestrians and bicyclists living nearby in order to encourage non-auto trips. Multi family and other forms of compact housing are also assumed to be concentrated around these centers to assure support for both transit and local businesses.

Traditional town centers can be defined by such features as city halls, county seats, recreational facilities, natural features, or suburban neighborhoods. Enhancement of existing buildings, pedestrian space and transit access benefits the central shopping district and open spaces associated with it. Apartments and flats mingling with shops that blend into the adjacent neighborhoods can benefit commercial interests and support transit.

Mixed Use Urban Centers are assumed to be the most intensively used urban places in the region and are generally characterized by: 1) high accessibility by transit and auto, 2) public open spaces and amenities and 3) substantial public investments in other public facilities and services. Mixed use urban centers are located at selected high capacity transit stops, and are between 100 and 500 acres in size. They contain predominantly employment-related land uses and a small amount of residential uses. They have at least one public open space or amenity as a central focus and meeting place, and a connection to a larger natural open space. They are normally active for 18 hours a day, have continuous and safe public pedestrian connections, and are directly linked to the regional bicycle network.

Residential transit centers are also located at stops on the high capacity transit system and are primarily places for medium to high density homes with some other supporting uses, particularly retail commercial and office commercial sized and developed to serve local needs of the residential uses.

The current urban growth boundary is shown on all maps in this report. In addition, potential urban reserves are indicated on concepts A and C. The buildable land assumptions cited in the Base Case were also applied in the other growth concepts.

While Clark County or other neighboring communities such as Canby, Estacada, and Newberg are not within the Metro jurisdiction, residents often commute to work in the region and others use the shopping, recreational or other amenities in other parts of the region. Growth is allocated to these cities, but no detail is assumed regarding the urban design in these jurisdictions. Concept C incorporates the largest growth allocation to these neighboring cities.

Regional landscape features can be considered in determining the optimum location of development and, likewise, the most beneficial areas to protect. Maintaining a distinct and decisive edge preserves the countryside close to urban residents as well as providing local markets for farms and nursery products.

Larger areas of contiguous agricultural uses are assumed to be retained in EFU. In areas with small lots or poor quality soils, large acreage minimum lot sizes are assumed to be used to encourage the rural productive uses, as small orchards, vineyards, pastures, and woodlots associated with the residential use of the property.

Small towns or centers in outlying areas provide essential services to local residents. The growth concepts assume limited dispersion of growth along roads or into agricultural lands. Development is presumed to occur in a concentrated form, which both fits the traditional rural community and can enhance support by public transportation linking these centers to other centers.

Parklands and open spaces make use of undevelopable land, recharge aquifers, provide habitat for wildlife, provide ecosystem connectivity and filter water runoff. These parklands also buffer sound, filter air and provide trail systems.

In the course of development some land is assumed to be set aside to satisfy the needs of residents and workers. These open spaces are destinations for lunch or relaxation during the day and for evening shopping trips. The Park blocks, plazas generally and the McCall Riverfront Park are examples of this type of urban amenity.

Accessible greenspaces of all sizes are part of the assumed design for every community. These greenspaces provide important breaks in the urban landscape and areas for recreation and relaxation. Neighborhood greenspaces are assumed to range from 1/4 of an acre to 12 acres.

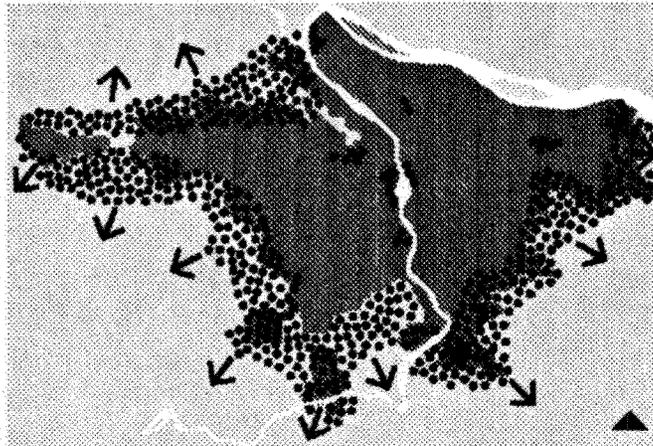
Concept A

Assumptions and Policies

Concept A responds the most to the public's interest in avoiding crowding by accommodating a substantial amount of growth in low density detached houses and by expanding the UGB. In this concept, additional growth is accommodated in centers located along high capacity transit lines. The balance of growth is accommodated on existing vacant lands within the current urban growth boundary consistent with current comprehensive plans. Public investment priority is directed to serving vacant lands.

Lands were added to the existing UGB by using the same information gathered for Base Case II, the information collected from sewer providers and the assessment map showing the amount of unusable land within each drainage basin outside the present UGB were used as the data base for determining additional urban lands. As assumed in the Base Case, no flood prone soils were included as buildable in the areas suggested for urban expansion.

Mixed Use Centers were designated in HCT station areas which were located in areas with substantial urban or market area radiating around them. In addition, locations that are already substantial employment centers were also included. Most importantly, as concept A has the greatest reliance on the auto, it was assumed that the centers would have substantial vehicular access. It was assumed that redevelopment potential would be the highest within 1/2 mile of a station. This would be particularly true in sites which require environmental waste cleanup or replacement infrastructure.

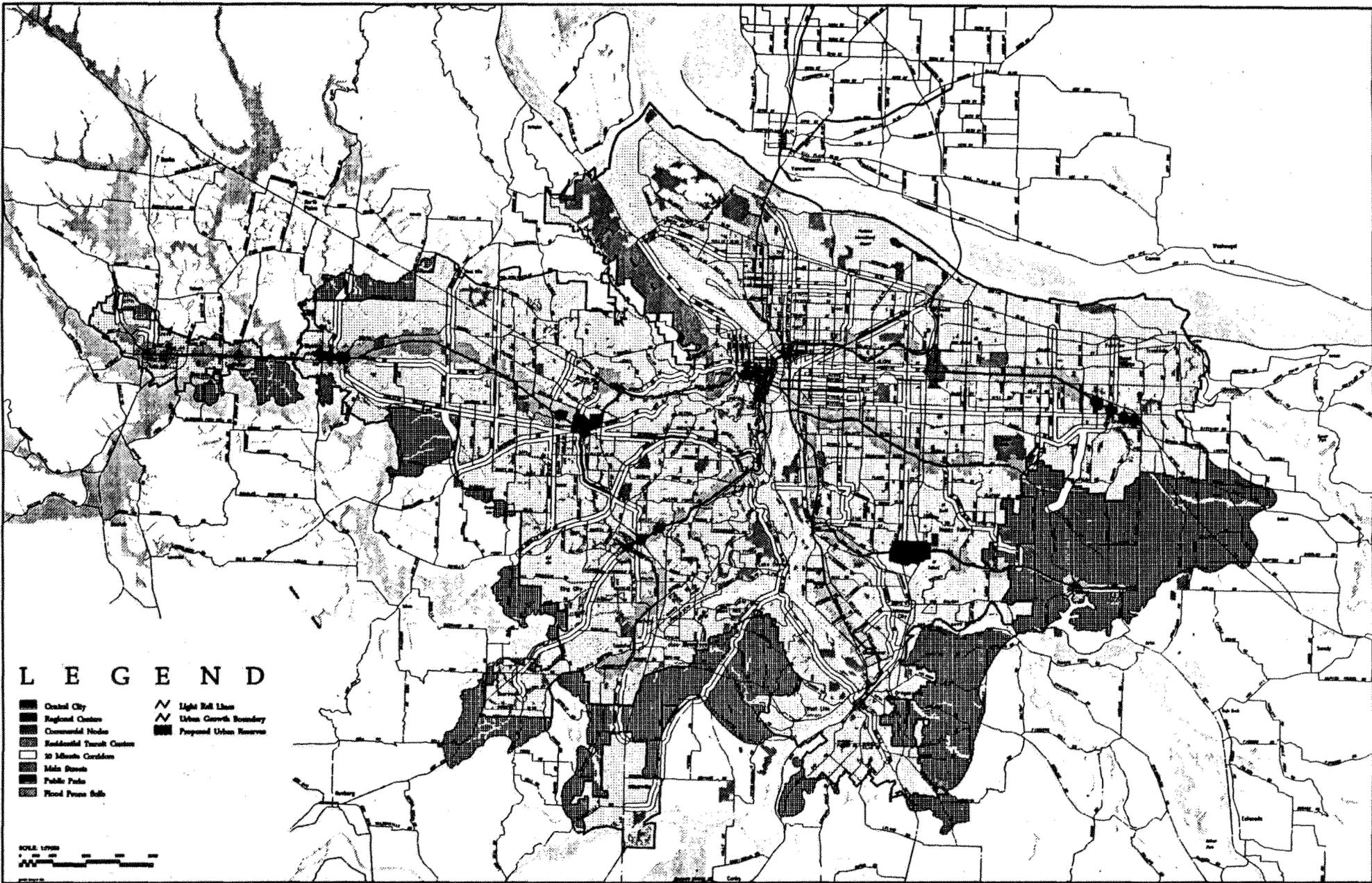


Three density classifications of mixed use urban centers are proposed. *Central City* includes only central Portland. *Regional Centers* include: Clackamas Town Center, downtown Gresham, downtown Beaverton, downtown Hillsboro, Washington Square/Tigard/Kruse Way as a single center. *Commercial Nodes* include: Gateway, downtown Milwaukie, downtown Oregon City and Peterkort.

Residential transit centers were designated at most other transit stations, except one at the airport and two along the assumed rail line to Oregon City where the existing comprehensive plan designations would be assumed to remain as they currently exist. At these centers, the residential nature of the area would be emphasized, with only a small proportion of support retail and office commercial. It would also be assumed that vacant buildable industrial and commercial lands within these centers would be developed as higher density residential.

Traditional Main Streets are used sparingly in concept A and are located primarily in areas where they already exist or seem to be emerging.

Concept A also assumes that because there are some areas of existing vacant, buildable higher density residential lands that would not be served by transit and are not greatly accessible by auto, that these areas would be developed as single family residential.



Transportation improvements in Concept A include the construction of three new freeways - the Westside Bypass, the Sunrise Corridor and the Mt. Hood Parkway.

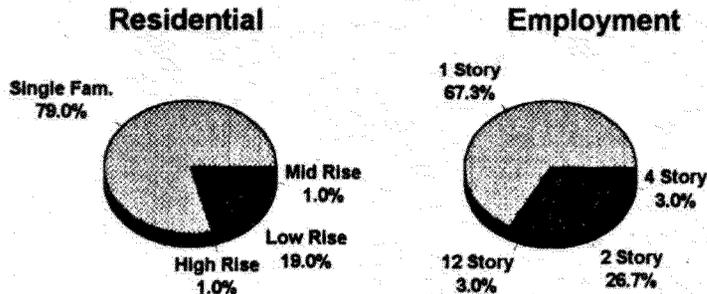
In addition, a radial high capacity transit system (either light rail or buses on exclusive lanes) is assumed. In concept A, the system would be centered on downtown Portland, with six corridors. These corridors include the presently built east rail corridor to Gresham, the westside rail corridor now under construction, a south rail corridor to Oregon City (several specific alignments are being considered now), a southwest corridor and a corridor to Portland International Airport. Several ten minute corridors are planned (see map).

Transportation Demand Management (TDM) plays a large role in meeting the state's Transportation Planning Rule (TPR) and the Federal air quality standards. In fact, although the level of TDM assumed in the Westside Bypass is used as a base threshold for all of the growth concepts -- the most reliance on these methods is assumed in concept A. This is because there is much more reliance on the auto as the primary mode of transportation and TDM measures can be used to increase the number of persons per car, thus lowering the vehicle miles per capita and air quality impacts. Specific TDM measures assumed for concept A are: employer trip reduction programs; regional parking pricing strategies; parking limitations; and fees based on annual mileage.

Concept A will result in a higher overall build up of lower density units than concept B and slightly less than C. As the graph below shows, almost 80% of the housing units in Concept A are single family and over two thirds of the new employment buildings are single story.

Concept A

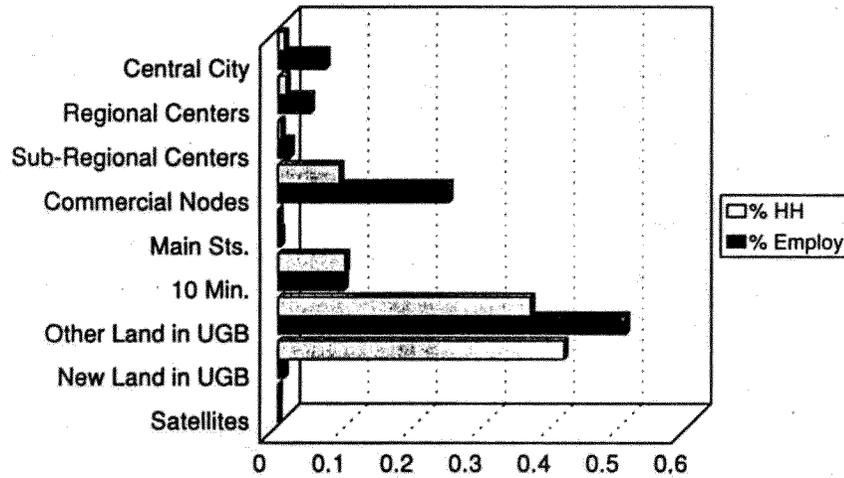
Likely Building Type



In Concept A, open space is more likely to be provided in private

land capacity analysis

Concept A New Growth Distribution



land capacity analysis

yards than public spaces. However, there are some types of open spaces, especially natural areas, which must be acquired or have public protection in order to assure that they will not be developed. The minimum acreage indicated in the Greenspaces program are assumed to be protected. This amounts to about 5,000 acres within the current UGB, plus several other important areas just outside, including the Boring Lava Domes. A system of trails as indicated on the Greenspaces Master Plan are also included. A very low level of improvements for greenspaces, such as limited parking and fencing, is assumed.

Concept B

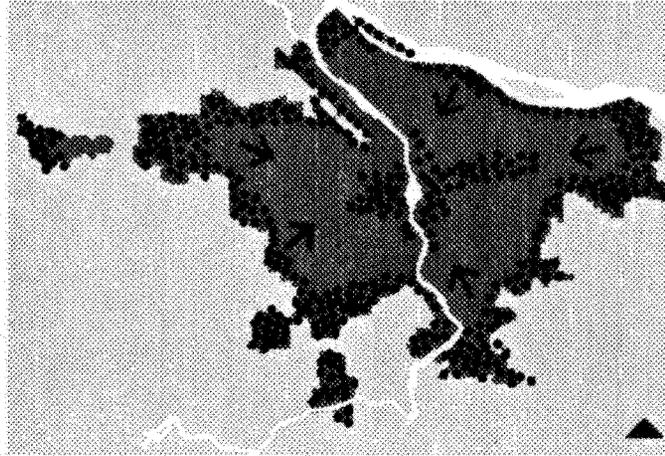
Overall Description

Concept B “grows up” and emphasizes convenience of the proximity of homes to jobs, shopping and services. Concept B does not move the UGB. As a result, it places greater importance on more compact development, much more reliance on transit (an important value to many surveyed) and more convenient connections between home and work.

This concept responds to the public’s interest in maintaining clean air and maintaining rural lands. It also affords the maximum range of higher density housing types and responds to likely changes in household demographics. Locations with high capacity transit service play an important role in accommodating growth. These centers would have homes and employment located together or in close proximity. Public investment assumptions would place first priority on serving development in mixed use urban centers, main streets and in acquisition of greenspaces.

Assumptions/Policies

Concept B, by not expanding the urban growth boundary, impacts areas inside the present UGB more than Concept A. However, agricultural areas or exception areas immediately outside the present UGB would not change as they would in Concept A.



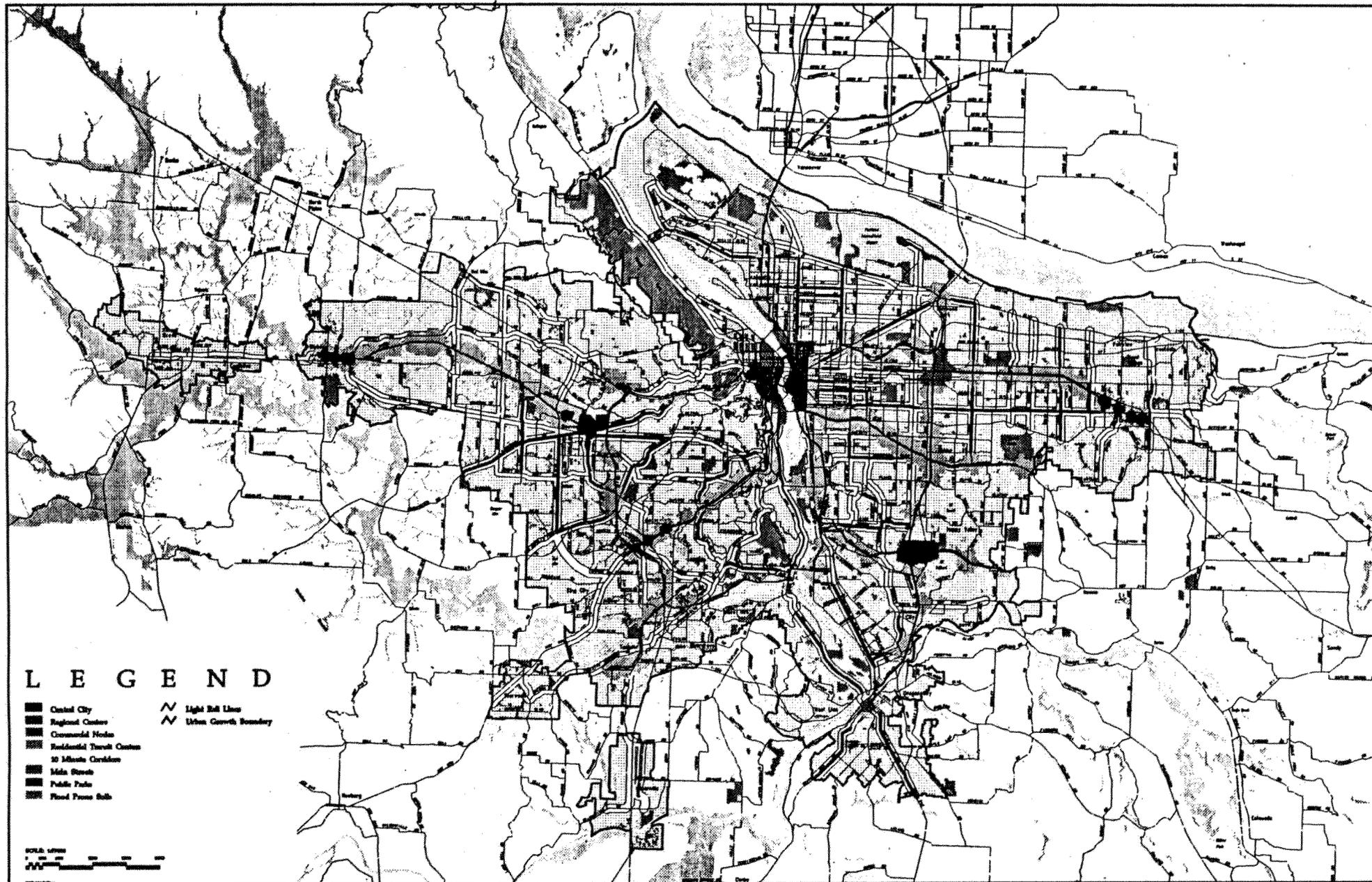
Mixed use urban centers were designated by a process similar to concept A. However, as there are more and different high capacity transit lines in Concept B and there are different alignments illustrated in B, the mixed use centers locations vary from A. In addition, traditional centers, particularly downtowns were favored in this concept. Mixed use urban centers in concept B have the highest amount of

development of any growth concept.

Redevelopment is a very important key to the mixed use urban centers’ role in accommodating a large portion of the concept’s growth. In addition, some of the development that may have occurred in areas designated commercial or industrial in present comprehensive plans is assumed to have been shifted to mixed use urban centers. Because the emphasis of growth and investment in this concept is on mixed use urban centers, the assumption was made that each center would have, over the course of time, the highest level of pedestrian amenities.

The mixed use urban centers in Concept B were placed in three categories as follows:

Central City - downtown Portland including the Lloyd and Macadam areas; *Regional Centers* (which places emphasis on existing



LEGEND

- Central City
- Regional Center
- Circumferential Node
- Residential Transit Center
- 30 Minute Corridor
- Main Street
- Public Park
- Flood Prone Sub
- Light Rail Line
- Urban Growth Boundary



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CONCEPT B Transportation and Land Use Changes

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centers/CBDs) - Clackamas Town Center, downtown Gresham, downtown Milwaukie, downtown Beaverton and downtown Hillsboro; *Commercial Nodes* - downtown Oregon City, downtown Lake Oswego, Gateway, downtown Sherwood, downtown Forest Grove, downtown Tigard, Peterkort, Washington Square and Kruse Way.

Residential transit centers were designated at stops not appropriate for mixed use centers, as was done in concept A. However, these areas are more dense than those of A (see preliminary growth allocation). Each of these centers was assumed to provide good pedestrian amenities.

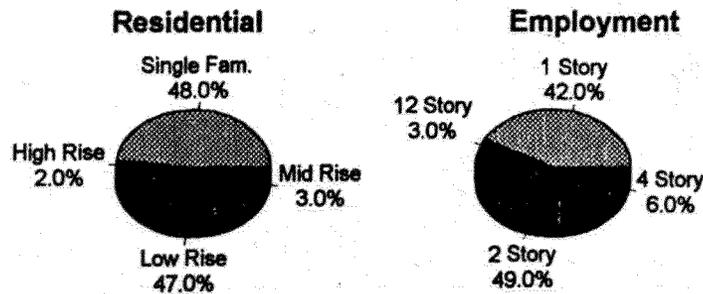
Because of the great emphasis on transit in this concept, there are more planned 10 minute corridors. As a result, more traditional and contemporary Main Streets are possible and are distributed throughout the urban area. Assumptions about the densities of development in these areas are listed in the preliminary growth allocation below.

In addition to accommodating growth in mixed use urban centers and residential transit centers, concept B includes some increases to existing comprehensive plan designations. Concept B assumes that the current maximum density allowed in presently vacant, buildable and designated residential land within the UGB would be increased 15 to 20 percent, while land not served by transit would be lowered.

The transit portion of the transportation system in Concept B is much more extensive than that in Concept A. In addition to a basic radial system similar to Concept A, a ring of high capacity transit serving suburban-to-suburban trips as well as trips centered on downtown Portland is included. Corridors include existing and committed lines east, west and south, as well as suburban-to-suburban lines serving such areas as northern Clackamas County, Lake Oswego, Tualatin, Tigard and the 217 corridor.

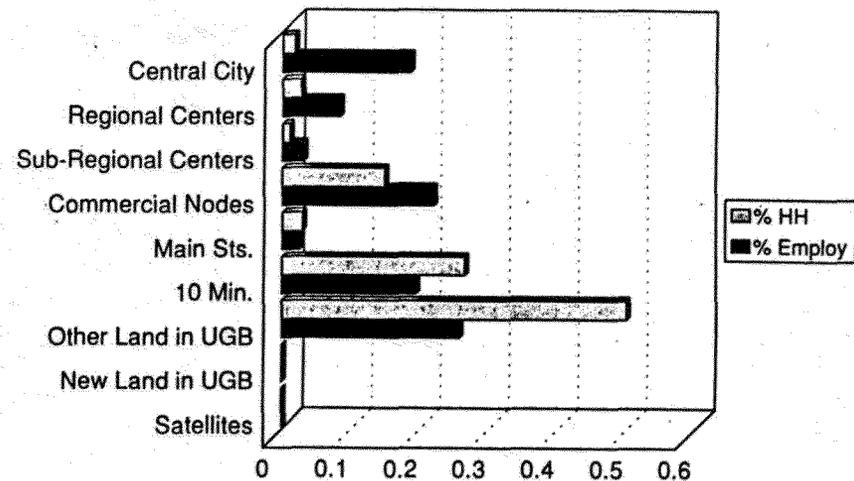
In lieu of the new freeways assumed in Concept A, Concept B includes arterial street improvements to help reduce congestion and develop multi-modal connectivity.

Concept B Likely Building Type



land capacity analysis

Concept B New Growth Distribution



TDM measures are of a lesser emphasis than in Concept A. TDM measures were deemed to be important to reinforce transit, walking and biking as alternatives to single occupant cars, but less so than in Concept A, where transit plays a lesser role and other means to encourage more efficient use of autos (e.g. car pooling) are required.

Concept B provides the widest array of building and working environments. Housing stock is split almost evenly between single family and low rise apartment stock. Likewise, 1 and 2 story employment centers are dominant with almost 10 percent of the commercial stock in buildings of 4 or more stories.

Concept B emphasizes providing publicly owned open space. It uses the Greenspaces Master Plan as a guide to which lands should be protected and assumes the maximum acreage protected. Between 7-10,000 acres of land within the current UGB are assumed to be protected as natural areas, including some areas reclaimed. In areas that may have additional development and are open space deficient, redevelopment should include some reversion of lands from developed to open spaces.

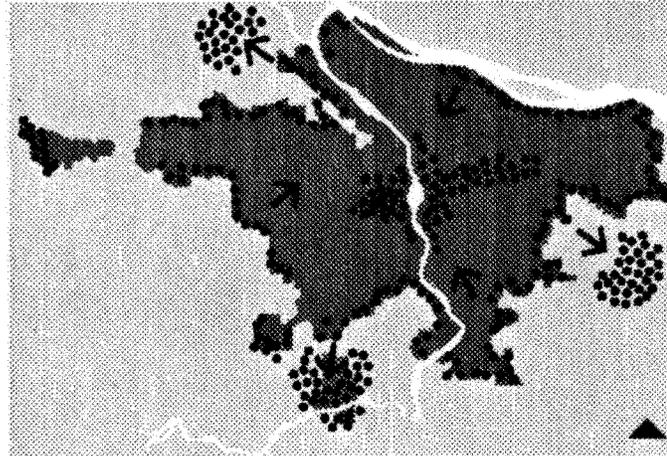
Concept C

Overall Description

Concept "C" responds to the public's interest in a high quality of life and pursues amenity-based developments including recreation, views, open spaces, water-oriented and other attractive features. A prominent feature of concept C is the notion that a significant portion of the growth which might otherwise occur in the metropolitan region would develop in areas outside the metropolitan area. This would need to occur consistent with the interest and capability of neighboring communities to accommodate growth. Such Oregon cities as Sandy, Estacada, Canby, Newberg, North Plains and Scappoose might accommodate up to one-third of forecast population and employment growth. This is in addition to communities within the metropolitan area such as Wilsonville and Damascus. Public investment priority would favor support of development in areas with amenities as listed above.

Assumptions/Policies

The population distribution goal in the alternative is one-third of new population growth in the Oregon side of the region to occur in satellite centers such as Scappoose, North Plains, Newberg, Wilsonville and Sandy. About one-third of the growth will occur

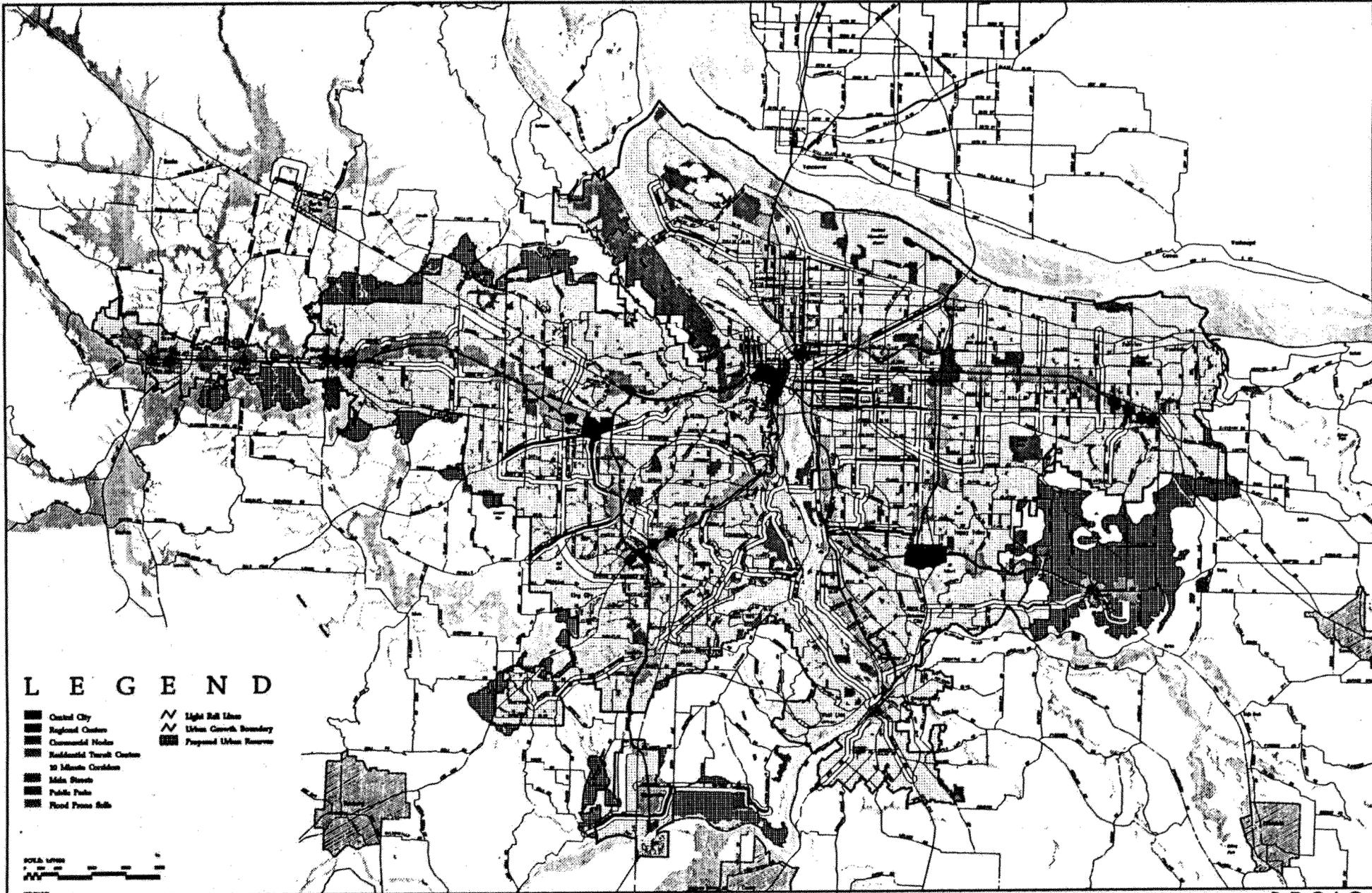


through redevelopment within the existing UGB, and one-third of the growth would be accommodated by development on vacant lands inside the current UGB or modest additions to the UGB based on recreational amenity potential. The landscape unit principle was used in conjunction with small opportunity sites around the existing UGB, to propose changes to the boundary.

In order to help ensure that such neighboring communities are not overly dependent on the metropolitan area for jobs, the growth concept assumes an employment distribution goal for any neighboring communities accommodating growth to strive for a 1:1 jobs/housing unit balance. This is intended to reduce commuting between areas and to provide stable public revenue sources for these communities.

Concept C has a transportation system that includes three newly proposed freeways - the Westside Bypass, the Sunrise Corridor and the Mt. Hood Parkway. It also has numerous arterial improvements designed to reduce congestion.

The concept also assumes LRT south to Oregon City, West to Hillsboro, north to Clark County, southwest to Wilsonville, east to Gresham and has an airport link. In addition, it has high capacity



transit lines that are less extensive than Concept B and are more like the radial system of Concept A. They include a corridor that serves Wilsonville as one of the satellite centers of growth. The potential satellite areas (excepting Wilsonville) are not served with high capacity transit because of the high expected cost when compared with potential ridership. However, each neighboring community is connected by transit to the rest of the region by trunk line transit service. This service would be express bus service at more regular intervals than now provided to serve particularly peak hour demand for access between neighboring communities and the region.

Mixed use urban centers are also included in: *Central City* - downtown Portland; *Regional Centers* - Clackamas Town Center, downtown Gresham, downtown Beaverton, downtown Hillsboro and those downtowns of satellite towns; *Commercial Nodes* - downtown Oregon City, downtown Milwaukie, downtown Lake Oswego, downtown Forest Grove, downtown Gladstone.

These centers would have densities and intensities of use that are generally between concepts A and B.

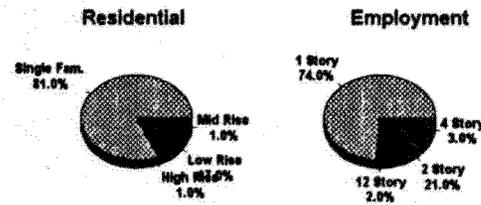
Residential transit centers are also indicated along high capacity transit where mixed use urban centers are not designated. The

densities for these are between the levels cited for concepts A and B (see preliminary growth allocation below).

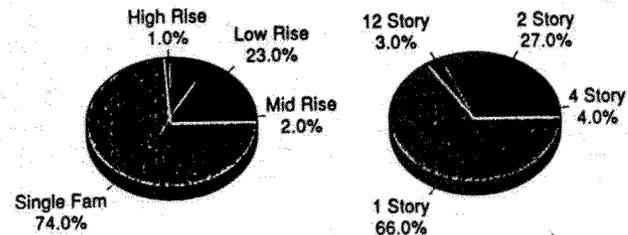
As with the other growth concepts, ten minute corridors are provided. These corridors are not nearly as extensive as those in concept A, but because there is more extensive compact growth than in concept A, potential ridership support is greater and therefore more 10 minute corridors proposed. In addition, as a result of better quality service, more Main Streets are designated, both traditional and contemporary.

In Concept C the low density building types are much more dominant than in A or B. The satellite city approach provides space for

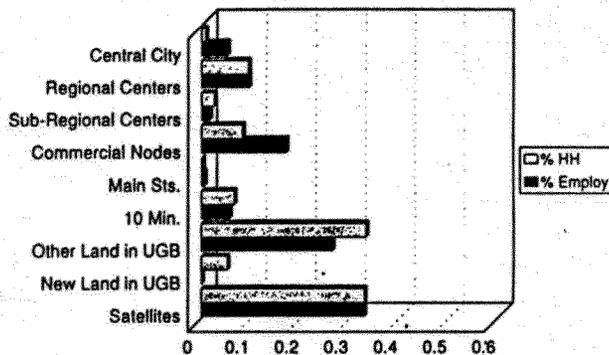
Concept C - Total Region Likely Building Type



Concept C - Inside UGB Likely Building Type



Concept C New Growth Distribution



land capacity analysis

such land uses and has few controls to increase density. Inside the UGB, Concept C develops at a slightly higher density than Concept A.

Open space in Concept C uses the Greenspace Master Plan as a guide to those areas to be acquired and protected. However, open space also answers a critical, though different, type of challenge. Open space serves to separate the metropolitan area from neighboring communities, acting as a guarantor that at least some communities will retain their distinct sense of place. The open space would take the form of a greenbelt, a combination of private production lands (i.e. agricultural and ranching) and public natural landscapes. This alternative recognizes the existence of lower density exurban housing within the greenbelt while requiring landscape management to retain rural character. A formal method of greenbelt protection and maintenance is assumed to retain satellite and center separation. A commitment to extending the Willamette River Greenway trail is made to ensure public access adjacent to areas proposed for development.

Chapter Five Public Values, Public Involvement

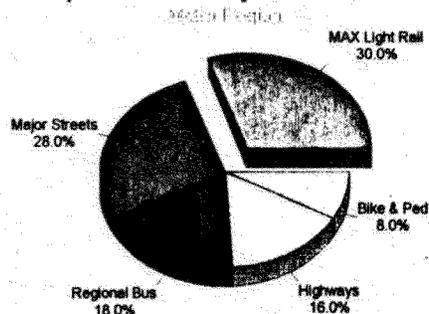
Public Involvement in the Region 2040 process is crucial and challenging. The size of the region requires an approach to involvement that goes outside the traditional realm of advisory committees, public workshops and formal hearings. Our process has expanded on these with efforts designed to get a complete picture of the range of opinions on the issues we face.

Phase I -- January, 1992 to December, 1992

The groups that Metro sought to involve in the decisions associated with the Region 2040 planning process included the general public, local government elected officials and planning commissions, interest groups, neighborhood groups, and the business community.

The first step was to determine what people value about their region and want to protect versus what people do not value and want to change. These values provided an overview of the criteria used to define and evaluate alternatives for the future of regional development.

Transportation System Priorities



Sept 93 C&I-speak

This took place between February and June, 1992. The public involvement process used five different strategies to look at values:

- a telephone survey of a random sample of

households in the region;

- an interview of representatives of governments, agencies, interest groups, neighborhoods, and business;

- a survey and exercises at the Metro Regional Growth Conference;

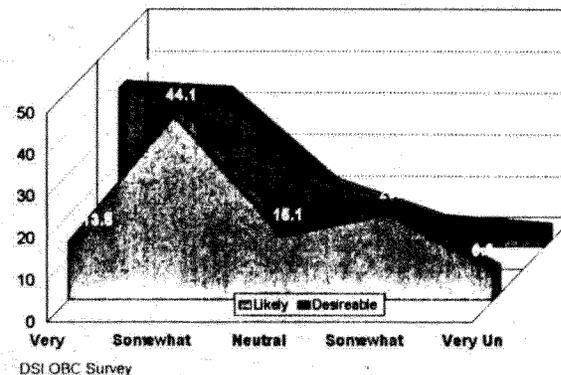
- questionnaires administered to local government elected officials and planning commissions; and

- regional public workshops

These activities may be divided in two groups: (1) those involving people who clearly had previous experience with the types of issues addressed and (2) those involving people who did not.

The responses from the first group are remarkably consistent. Respondents like our quality of life; they don't like traffic congestion.

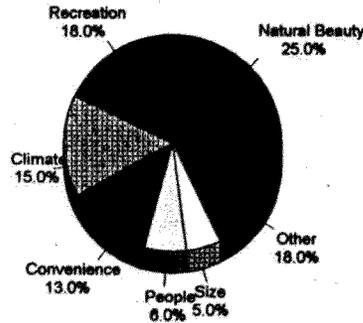
Future Trends - Mass Transit will Replace Auto



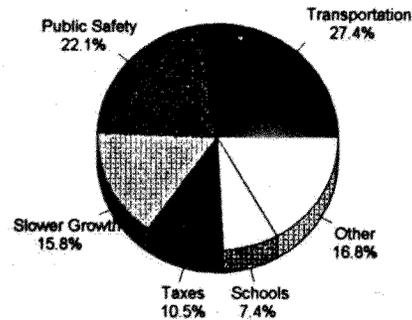
DSI OBC Survey

Portland Metro Region Survey Results

What do you like?



What would you improve?



A majority support alternatives that make future development more concentrated, favor growth in existing areas before expanding to new areas, and favor mixed use development, urban infill and more investment in transit.

The telephone survey was done early in the process and asked people about their neighborhoods, not regional development. The responses from the activities in the interview are similar to those from the survey with a couple of notable exceptions. The interview group was more vocal about site-specific issues, for example they like a quiet, rural lifestyle and good neighbors.

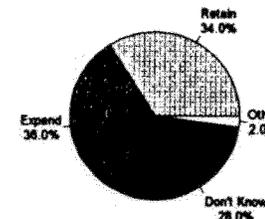
During the summer and fall of 1992, public involvement efforts focused on the adequacy of the three growth concepts, suggestions for modifications or additional concepts, and criteria to be considered in evaluating these concepts and in choosing a preferred alternative. The public involvement techniques included:

- distribution of over 20,000 copies of the tabloid, *Region 2040: Shaping the choices for Growth*;

- workshops with 40 local government groups;
- workshops with 14 neighborhood groups;
- thirteen briefings with special interest groups;
- three public open houses;
- two focus groups;
- a stakeholders survey; and
- a cable television call-in program.

While the formats of the various public involvement techniques varied, the nature of the input solicited was similar. Specifically, participants were asked to discuss:

Growth Concentrated in Existing Cities, Not Undeveloped Area

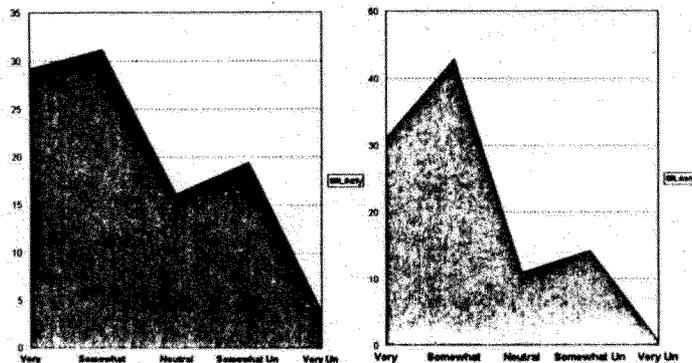


- Do the three concepts adequately convey the full range of possible alternatives for the region's future?
- If not, how should they be modified? Should one or more concepts be added?
- What criteria should be used to evaluate the concepts to help Metro choose the preferred alternative in 1993?

In general participants supported further analysis of the three growth concepts in Phase II, although there were numerous questions about the specifics of each concept and suggestions for modifying and expanding the range of alternatives. General reaction to the three concepts was:

- Most participants indicated that the three concepts adequately convey a reasonable range of alternatives for the region's future. At the same time, adding a "no growth/slow growth" concept and

Local Traffic Congestion Will Make It Difficult to Travel



OBC DSI Metro Respondents

expanding the planning area were recommended in all forums, except the focus groups.

- Expansion and improvement of transit services and protection of open space both in and outside the UGB

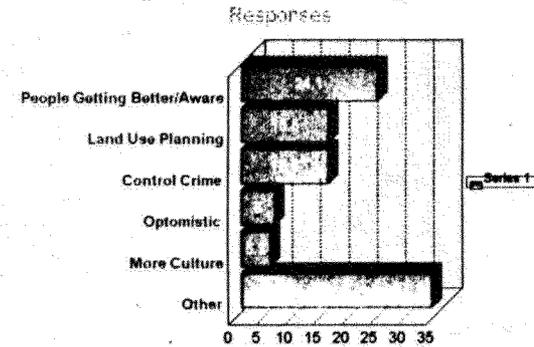
were identified as critical elements of any growth concept eventually selected.

- Questions and suggestions about how to actually implement the growth concepts were common in all forums.

In December 1992, the Metro Council concluded that the three were adequate as general concepts and approved them for future study. The council directed that each concept incorporate a Greenspaces element and that a base case be developed for the purpose of assessing the implications of implementing existing plans and policies.

In response to public questions and concerns about growth assumptions, the council directed that factors influencing growth rates and how each concept responds to these factors would be analyzed. Metro staff will also assess factors that may encourage or discourage growth and consider the effects of growth in Clark, Columbia, Yamhill and Marion Counties.

Quality of Life Getting Better



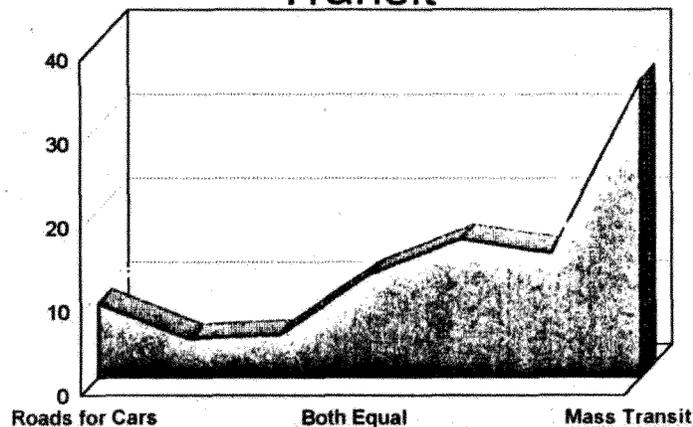
DSI 2040 Survey, April 1992

Phase II public involvement -- January, 1993 to January, 1994

The public involvement in this phase is divided into two major components. The first occurs during most of the technical work and investigation of policy options. Most of the questions have revolved around how to study the issues, rather than drawing conclusions about the results of the study. During this phase, public involvement has focused on three specific groups:

- policy makers: the Metro Council, the Metropolitan Policy Advisory Commission (MPAC), and the Joint Policy Advisory Commission on Transportation (JPACT);
- technical experts;
- the general public.

Invest in Roads vs Invest in Transit



DSI - Region 2040

Metro staff has regularly met with Metro Council and Metro's policy committees, MPAC and JPACT, to keep them up to date on the technical progress of developing and analyzing the growth concepts.

Since January, 1993, a technical advisory group has been meeting. This group, referred to as the "Users Group", consists of local government planners, planning consultants, and technical representatives of interest groups involved in the Region 2040 planning process. The technical experts worked with Metro staff to shape the base case alternatives, and concepts A, B, and C. They provided input on:

- transportation improvements;
- vacant land and infill and redevelopment opportunities;
- population and employment allocations;
- development trends;
- modeling;
- infrastructure; and
- sense of place.

The focus of activities planned for the general public during the technical development process of the growth alternatives is education. Metro attempted to reach more people and give them the information necessary to think about the choices and trade-offs associated with growth.

The main activities undertaken since January 1993 are:

- distribute an edition of the *2040 Update* to 14,000 people;
- establish a speakers bureau and present to all who request speakers;
- present displays at county fairs and community events;

- develop a brochure to be distributed to libraries, senior centers, schools, grocery stores, etc; and
- the Metro Regional Growth Conference.

The 2040 Update offered a tear off reply card for readers. It asked respondents to rank the importance of issues like preservation of natural areas, housing affordability, accessibility to jobs and services, and agricultural and forest land preservation.

Decision making

Once the studies are complete, the focus turns from how to study the issues to what conclusions can we draw and what decisions can we make. An aggressive public involvement campaign will be a major effort of the Region 2040 staff. Public involvement will include the traditional public workshops, presentations to groups and a large mass media campaign to inform people of the study results and the decisions to be made.

Involving Governments and Stakeholders

Once the alternatives are analyzed and published, the results will first be presented to the Metro Council and as many local governments as is feasible, as well as the Future Vision Commission, MPAC and JPACT. Based on the input received, Metro staff will try to formulate a recommendation for action.

The formal adoption process would begin, amid a major public involvement campaign. Each jurisdiction would be formally given an opportunity to hear a presentation and to make a recommenda-

tion. Then the recommendation of Future Vision, JPACT and MPAC would be requested. Finally, the Metro Planning Committee would forward its recommendation for Council deliberation. The current schedule calls for this decision to be made in July, 1994.

Plans for Public Involvement During Decision Making

Public involvement during the decision making phase will be of unprecedented scope and ambition. It is our goal to contact two-thirds of the region. This means that 700,000 people will need to hear about Region 2040 and have a way to respond to it.

Decision making starts off with the publication of two documents reporting the results of the analysis of Concepts A, B, and C. A tabloid will explain the results of the analysis and choices to be made and will be published and widely distributed throughout the region. A technical document will also be published that gives a detailed report on the statistical results of the analysis.

In addition, a 10 minute video will be prepared that covers the same topics as the tabloid. This will be shown on local cable or broadcast television, and copies will be widely distributed. The tabloid will announce the availability of the video and the video will advertize the availability of the tabloid.

After the publication of the decision document, a series of public workshops will be scheduled present the results of the analysis, explain options, and request input. Presentations to local governments will also be made. There will also be an extensive media campaign to publicize the issues involved and encourage the public to be involved in the process. A call-in program on cable TV, preceded by the Region 2040 video, will provide a factual basis.

Finally, a public hearing before the Council will precede their deliberation and decision.

Chapter Five

Works in Progress

Evaluation of Alternatives

Evaluation of both methods and results is a very important step in planning and is substantially more demanding when dealing with a 50 year time horizon. Forecasting future population, employment, densities, etc. is possible, but must be tempered by the knowledge that with long-term projects like Region 2040 there are many types of change that are unforeseeable.

Metro has a Federally approved air pollution computer model (Mobile 5) designed to estimate the air pollution generated from most mobile sources (autos, etc.). It uses as its base the results of Metro's transportation model, which in turn is based on Metro estimates of population, employment, incomes, land uses and other factors. If you accept that all of these data and assumptions that go into Mobile 5 are correct, there are still qualitative differences in technology and tastes which could make fundamental differences in model results. For instance, if improvements in air emissions result from electric cars, or tele-commuting becomes a significant work habit, mobile sources of air pollution could be less than what might otherwise be predicted. Alternatively, if fuel costs are less than assumed, vehicle miles traveled could be greater and air pollution consequences worse than predicted. The results aren't an evaluation of actual performance of different alternatives, they are an attempt to predict performance of growth alternatives with regard to specific factors (water quality, crime, etc.).

The approach used with the prediction of performance for each regional growth alternative will be forthcoming about the assump-

tions made and the kinds of factors which could significantly change performance predictions. It may be that for some factors that are evaluated, linear projections of recent trends may be the only available method. Where this is the case, it may fall to future work efforts to monitor change and create responses when signs of significant change and negative consequences appear likely.

Humility about our abilities to evaluate alternatives is therefore most appropriate. In addition, when the Regional Framework Plan is developed from the Region 2040 work, the projections will be reexamined in a shorter time frame - to 2015.

Having acknowledged that the ability to evaluate regional growth alternatives is limited, it is also important to note that there is a wide range in abilities to evaluate specific factors. Some are more easily quantified, as computer models or other methods exist to establish a numerical measure in an objective manner. Other factors (crime or human service considerations) are difficult to quantify. For some factors, being able to establish that one growth alternative performs better on a relative scale than the others may be all that data can establish.

The data developed will be useful to the public and policy makers. However, it does not seem likely that the data alone will lead to an irrefutable conclusion. The values of individuals, informed by the best available information, will weight the factors most important to those individuals and result in an individual's conclusion. For this reason, the approach of this evaluation is to provide the best and

most complete information available, inviting the public to come to their own conclusion. Staff will complete their own analysis, recommendations and conclusions, but there will be a clear differentiation between the data, which we have called "Descriptive Indicators" and any conclusions. Values differ from person to person. We recognize that those differences exist, but assert that an informed conclusion is better than one based solely on values.

Criteria

A beginning question about evaluation is what should be evaluated? The first resource considered was the *Regional Urban Growth Goals and Objectives*, (RUGGO) adopted by the Metro Council. This document provides a wide-ranging set of goals important to the region. Other policy and planning documents from selected communities across North America were reviewed for goals and evaluation criteria. These resources were used to produce a working list of descriptive indicators. This list was then reviewed by the Region 2040 Management Committee and the Metro Technical Advisory Committee. After revisions, a survey of the Metro Policy Advisory Committee and the Metro Council was made concerning which factors were most important. Interestingly, these surveys found that for each subject area, at least one member found that subject area to be of the highest importance for evaluation. In addition, there was a strong interest in being able to express the descriptive indicators in terms that citizens could quickly grasp, not in highly technical terms. However, it was recognized that although some factors would be difficult to evaluate because they were not easily quantifiable (housing costs, crime, human service impacts), they should be nonetheless vigorously pursued.

Indicators Measured by Metro

The descriptive indicators and performance evaluation has not yet been completed. A consultant will be selected to complete some of

the work, while Metro staff will complete other portions.

The following is a list of the descriptive indicators that will be analyzed by Metro staff.

Air Quality

Air quality is a goal for which there are Federal and state regulations and is one of the goals addressed by RUGGO. The Region 2040 project has a greater time horizon than either state or Federal regulations. Accordingly, estimates of performance is at best likely to provide useful information about the relative differences in air quality. Although a numerical result will be derived, it should be clear that changes in technology or taste could greatly affect the predicted performance.

The following are the proposed air quality measures:

1. Predicted particulate emissions for vehicles using Mobile 5 software and Metro's transportation model.
2. Predicted particulate emissions from employment and other stationary sources, using the Governor's Task Force of Air Quality data.
3. Predicted total particulate emissions from all sources compared with current conditions.

Open Space

A Metro Greenspaces Master Plan has been adopted, as have city, county and special district park plans in addition to open space goals and objectives in RUGGO. Comparisons of current and future open space needs should provide useful information to citizens and policy-makers alike. Maps that generally show areas of open spaces

conserved should also be made available.

The following are proposed Open Space measures:

4. Predicted number of acres of natural areas acquired/protected and their associated cost. Estimated by Metro staff, reviewed by local park providers.
5. Predicted number of acres of active parks acquired. Estimated by local park providers, GIS assistance by Metro staff.
6. Comparison of acres of public open space per capita now and in the year 2040. Estimated by Metro staff, reviewed by local park providers.
7. Comparison of number of acres of higher elevation visible greenspaces now and in the year 2040.

Rural Resource Land

State Planning Goals and RUGGO call for the conservation of rural resource lands. The following measures provide detail regarding the amount of rural resource lands used. In addition, maps prepared by Metro will be able to locate the areas where such changes occur to provide geographic as well as numerical picture.

The following are proposed rural resource land measures:

8. Acres of agricultural land currently in production, proposed to be urbanized. Calculated by Metro staff, reviewed by Farm Bureau, other interested organizations.
9. Acres of land presently zoned EFU, proposed to be urbanized. Calculated by Metro staff, reviewed by US Soil Conservation

Service.

10. Acres of forest land currently in production, proposed to be urbanized. Calculated by Metro staff, reviewed by interested organizations.

Sense of Place / Community

This is a goal that does not easily lend itself to measurement, although the measure listed below is one important consideration. This factor is listed in RUGGO.

11. Percent of population within 1/4 mile walk of: parks/open space, transit service, elementary school, neighborhood commercial, community meeting facility and bike path. Estimated by Metro staff, reviewed by cities of the region.

Transportation

Transportation is a very important everyday issue with citizens and policy makers. Federal, state regulations and goals as well as RUGGO address this topic. A wide range of indicators are included to provide a number of different predictors of the quality of transportation in the region. Some of the predictors are technical, but the first two everyone should find useful.

The following are 2040 transportation measures:

12. Forecast of cross region travel times at peak hour for transit and auto (with 1990 comparison numbers). Prepared by Metro staff, reviewed by local government, Tri-Met and ODOT staffs.
13. Forecast of costs of transportation improvements by transit and road categories. Prepared by Metro staff, reviewed by local government, Tri-Met and ODOT staffs.

14. Forecasts of traffic volume-to-capacity ratios. Prepared by Metro staff, reviewed by local government, Tri-Met and ODOT staffs.

Land Use

State Planning Goals and RUGGO indicate concern with land use development patterns. Land use assumptions provide a large portion of the data base for transportation and other factors to be evaluated. The assumptions that are made for this factor will need to be very clearly and completely described.

The following are 2040 Land Use Measures:

15. Estimated residential densities in various areas, now and in the year 2040. Estimated by Metro staff using RLIS.

16. Estimated housing type ratio, now and in the 2040. Estimated by Metro.

17. Comparison of number of households that are auto dependent now and in 2040. Estimated by Metro staff.

Noise

Although not specifically called out in RUGGO, in random surveys of the citizens of the region, noise is a consistently listed concern.

Noise is measured in the year 2040 by:

18. Estimated number of households within: 200 feet of freeways without noise buffers, 100 feet of arterial streets, 200 feet of railroad mainlines and within the 65 dBA noise contour of an airport. Prepared by Metro, reviewed by local government, Tri-Met, Port of Portland and ODOT staffs.

Energy Costs

Also not specifically listed in RUGGO, energy as a growth factor is considered by many to be an important factor and is included for consideration.

Energy costs and consumption is measured in 2040 by:

19. Estimated amount of fuel used by vehicles per day. Forecast by Metro staff using Metro transportation model, fleet mix, average fuel consumption assumptions. Reviewed by local government, Tri-Met and ODOT staffs.

Indicators Measured by Consultant

Water Quality & Supply

Understanding water quality and supply issues is not only an important consideration listed in RUGGO, it is one that citizens and policy makers routinely list as an important concern. Quality and cost issues will be important considerations.

20. Estimated cost of providing water for domestic and industrial consumption meeting new Federal Water standards. Estimated by water providers of the region, coordination and review by consultant.

21. Estimated cost of providing sanitary sewer systems (collection and treatment) assuming best management practices. Estimated by sewer providers of the region, coordination assistance and review by consultant.

22. Estimated cost of providing storm water drainage and treatment assuming best management practices. Estimated by drainage providers of the region, review by consultant.

Housing

This factor is listed as part of RUGGO. This issue is perhaps one of the most difficult to assess and one of the most important, for it will have major implications for the quality of life available to residents of the region.

- 23. Estimate of future housing need by product type.
- 24. Comparison of estimated housing need and regional growth alternative opportunities.
- 25. Estimate of housing cost trends for each regional growth alternative, compared with populations in various income categories.

Employment

As listed in RUGGO, this factor, is simultaneously one of the most difficult to assess and most important to appraise as accurately as possible.

- 26. Estimate of future employment needs by facility type and land requirements.
- 27. Comparison of estimated land requirements and opportunities provided by each regional growth alternative.

Indicators Derived by Consultant Facilitation

Security

As with the last two factors, this factor is very difficult to numerically evaluate. Regardless, it is a very important consideration. Local law enforcement officials will be asked to discuss the relative merits and drawbacks of each regional growth alternative.

- 28. Assessment of relative security consequences of regional growth alternatives by local law enforcement.

Human Services

Local human service officials will be asked to discuss the relative merits and drawbacks of each regional growth alternative.

- 29. Assessment of relative human service costs of regional growth alternatives by human service providers.

Regulation

- 30. An estimate of the amount of regulatory control required in each concept, and the possible adverse effects of those regulations. If possible, an estimate of the costs of regulation.

Regional Design Images

The Regional Design Images work effort is another part of the Region 2040 effort and is intended to provide the public and policymakers with drawings of what specific areas of the region could look like if one of the policies inherent in one of the growth concepts were implemented. Eight sites from throughout the region were selected and they include Clackamas Town Center, Sandy, Damascus, Hillsdale, downtown Tigard, downtown Beaverton, downtown Gresham and Orenco. Calthorpe and Associates have been retained to provide urban design assistance.

Open houses were held within the bounds of each site. Attendance ranged from 20 people to over 100, with most having between 40 and 60 people. Materials developed for these open houses included maps showing existing zoning, comprehensive plans, existing land uses, natural features and redevelopment potential. In addition, for the 6 sites inside the urban growth boundary, design workshops were held. The workshops were attended by representatives of neighborhood organizations, property and business owners, land use planners and public works officials from the affected local agency, Tri-Met staffmembers and Metro staff. These workshops, assisted by Peter Calthorpe and members of his firm, included a detailed exercise taking the generalized assignment numbers for jobs and housing for the area for the three growth concepts and attempting to accommodate the growth within the study bounds. Planning principles concerning land use treatment and transportation considerations as well as base maps were prepared for each site and mailed to participants prior to the workshops. At the workshops, to-scale "icons" illustrating the number of jobs or housing that different land use types could accommodate were distributed, so that participants understood land use choices and what kind of development would be necessary to accommodate the growth targets.

The products of the workshops included several plan-view land use and transportation maps for each site.

Calthorpe and Associates are now developing detailed plan view maps of each area and will be completing "bird's-eye" perspective drawings in addition to ground level drawings for each site. In this way people can understand what kinds of development patterns would have to occur to accommodate growth within the parameters of each growth concept.

Growth Analysis

Another Region 2040 project is the Growth Analysis, which is intended to understand the concerns that some citizens of the region have stated about growth, that is, "why do we have to grow?". An analysis of what policies might be proposed and what the cost and consequences might be is currently being completed. Extensive research by the consultant, Eco Northwest, will result in a report outline that will likely be very extensive (70 + pages). The report will describe the growth "drivers", what approaches other communities have taken and results to date as well as the likely costs of consequences of no or slow growth policies. Two focus groups were held with citizens advocating no or slow growth and two groups of organizations and individuals affecting growth were held. A discussion of the issues with nationally recognized speakers is being arranged for January 19, to help provide additional information for a final report. Both the Growth Analysis, the evaluation work and the design images will provide additional dimensions and analysis for the public and policymakers to consider as they think about the region's future, their desires and how to best craft a prudent growth strategy for the region.

Appendix A

Acronym Glossary

Note: Not all the acronyms in this list are mentioned in this report. They are provided here as a resource.

AA	alternative analysis	DEIS	Draft Environmental Impact Statement)
ADT	average daily traffic	DLCD	Department of Land Conservation and Development (State of
AGC	Associated General Contractors (interest group)	Oregon)	
AIA	American Institute of Architects	DOT	Department of Transportation (U.S.)
ANSI	American National Standards Institute	DRAM	Disaggregated Residential Allocation Model (also see EMPAL)
APTS	Advanced Public Transportation Systems	DRC	Data Resource Center (Metro)
AQMA	air quality maintenance area	DRT	Demand Responsive Transit
ATIS	Advanced Traveller Information System		
ATMS	Advanced Traffic Management Systems	EFU	exclusive farm use
ATP	alternative transportation projects	EIS	Environmental Impact Statement
AVCS	Advanced Vehicle Control Systems	EMPAL	Employment Allocation Model
		EMS	emergency medical service
BEA	Bureau of Economic Analysis (Federal)	EUC	Emerging Urban Centers
BMP	best management practices		
BOMA	Building Owners and Managers Association (interest group)	FAR	floor area ratio
		FAU	Federal-Aid Urban
CAA	Clean Air Act (federal)	FHWA	Federal Highways Administration
CAAA	Clean Air Act Amendments	FOCUS	Forum on Cooperative Urban Services
CAC	Citizens Advisory Committee	FSTP	FAU/STP Transfer Program
CAT	Committee for Accessible Transit (Tri-Met)	FTA	Federal Transit Administration (formerly UMTA)
CCI	Metro Committee for Citizen Involvement	FTE	full time equivalent
CCTMP	Central City Transportation Management Plan	FY	fiscal year; financial year
CHAS	Comprehensive Housing Affordability Strategies		
CMAQ	Congestion Mitigation/Air Quality (funds)	GIS	Geographic Information System
CMP	Congestion Management Plan	GMA	Growth Management Act (State of Washington)
CPO	Community Planning Organization	GO	General Obligation (bonds)
CRAG	Columbia Region Association of Governments (predecessor of Metro)	GPAC	Greenspaces Policy Advisory Committee
CTAC	Consolidated Transportation Advisory Committee (Clark County, Washington)	GTAC	Greenspaces Technical Advisory Committee
C-TRAN	Clark County Transit System	GWEB	Governor's Watershed Enhancement Board

HBR	Highway Bridge Replacement	NEPA	National Environmental Policy Act
HCT	High Capacity Transit	NEPA	National Environmental Protection Act
HH	households	NFMA	National Forests Management Act
HIA	household, income, age	NHS	National Highway System
HOV	high occupancy vehicle	NPPC	Northwest Power Planning Council
HTF	Highway Trust Fund	NPS	Nationwide Permit System
HUD	Housing and Urban Development		
I/M	inspection/maintenance	OAR	Oregon Administrative Rule
IMS	Intermodal Management System	ODF	Oregon Department of Forestry (State)
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991 (U.S.)	ODFW	Oregon Department of Fish and Wildlife (State)
ITE	Institute of Transportation Engineers	ODOE	Oregon Department of Energy (State)
IVHS	Intelligent Vehicle Highway System	ODOT	Oregon Department of Transportation (State)
JPACT	Joint Policy Advisory Committee on Transportation	ONA	Office of Neighborhood Associations
JRPC	Joint Regional Policy Committee (Clark County)	ORS	Oregon Revised Statutes
LCDC	Land Conservation and Development Commission (State)	OTQI	Oregon Transportation Quality Initiative
LID	local improvement district	PAC	policy advisory committee
LMC	lane mile congestion	PEF	Pedestrian Environment Factor
LOS	level of service	PMG	Project Management Group
LPA	locally preferred alternative	PTBA	Public Transportation Benefit Authority (State of Washington)
LRT	light rail transit	PTN	Primary Transit Network
LUBA	Land Use Board of Appeals (State)	RAPP	Regional Alternatives Planning Process
LUTRAQ	Making the Land Use, Transportation and Air Quality Connection (1000 Friends of Oregon)	RLIS	Regional Land Information System (Metro)
MACS	Metropolitan Area Corridor Studies (ODOT)	RPAC	Regional Policy Advisory Committee (now MPAC)
MAPD	Metro Area Planning Directors	RPAG	Regional Providers Advisory Group (Water)
MGPAC	Metropolitan Greenspaces Policy Advisory Committee	RSWMP	Regional Solid Waste Management Plan
MGTAC	Metropolitan Greenspaces Technical Advisory Committee	RTAC	Regional Technical Advisory Committee (now MTAC)
MPAC	Metro Policy Advisory Committee	RTC	Regional Transportation Council (Southwest Washington,
MPO	metropolitan planning organization (federal title)	MPO)	
MSD	Metropolitan Service District (former Metro title)	RTP	Regional Transportation Plan
MSDS	Material Safety Data Sheets	RTPO	Regional Transportation Planning Organization (State of Washington)
MSS	Metro South Station	RUGGO	Regional Urban Growth Goals and Objectives
MSTIP	Main Street Transportation Improvement Program	SAM	Spatial Allocation Model
MTAC	Metro Technical Advisory Committee	SIP	State Implementation Plans
NAAQS	National Ambient Air Quality Standards	SMSA	standard metropolitan statistical area
NARC	National Association of Regional Councils	SNMP	Simple Network Management Protocol
		SOV	single occupancy vehicle
		STEA	Surface Transportation Efficiency Act of 1991 (aka ISTEA)
		STFAC	Special Transportation Fund Advisory Committee
		STIP	State Transportation Improvement Plan

STOP	Sensible Transportation Options for People (interest group)	VHD	vehicle hours of delay
STP	Surface Transportation Program	VHT	vehicle hours of travel
TAC	Technical Advisory Committee	VMT	vehicle miles traveled
TAZ	Transportation Analysis Zone	VPACT	Valley Policy Advisory Committee on Transportation (High
TCM	transportation control measures	Speed Rail)	
TCP	transportation corridor planning	VPH	vehicles per hour
TE	Transportation Enhancement (funds)	VPS	Visual Preference Survey
TDM	Transportation Demand Management or Travel Demand Management	WBS	Western Bypass Study
TDP	Transit Development Plan	WRC	Water Resources Commission (State)
TE	Transportation Enhancement (funds)	WRD	Water Resources Department (State)
TIF	Traffic Impact Fees	WRPAC	Water Resources Policy Advisory Committee (Metro)
TIP	Transportation Improvement Program	WSDOT	Washington State Department of Transportation
TIS	transit intensive strategy		
TMA	transportation management area		
TMAC	Transportation Managers Advisory Committee		
TMDL	total maximum daily loads (pollution levels)		
TMS	Transportation Management Systems		
TOD	transit-oriented development (project)		
TPAC	Transportation Policy Alternatives Committee		
TPC	Transportation Policy Committee		
TPR	Transportation Planning Rule		
TRC	total resource cost		
Tri-Met	Tri-County Metropolitan Transportation District of Oregon		
TSAP	Transit Station Area Planning		
TSC	Traffic Safety Commission (State)		
TSM	Transportation System Management		
UGA	Urban Growth Area (Washington State)		
UGB	Urban Growth Boundary (Oregon State)		
UGM	urban growth management		
UMTA	Urban Mass Transportation Administration (U.S., now FTA)		
UPWP	Unified Planning Work Program		
USA	Unified Sewerage Agency (in Washington County)		
USB	Urban Services Boundary		
USEPA	United States Environmental Protection Agency		
USFS	United States Forest Service		
USFWS	United States Fish and Wildlife Service		
UWP	Unified Work Program		

Appendix B

Growth Assumptions

Base Case

1. Arterial/Freeway Improvements

A. Prioritized as follows, subject to funding:

1. Current committed projects to the year 2000
2. Projected RTP projects to the year 2010
3. Post-RTP freeways, first phase (funded as a group)
 - i. Sunrise Corridor from McLoughlin to I-205 (including interchange improvements)
 - ii. Mt. Hood Parkway from I-84 to Division
 - iii. Western Bypass from I-5 to Highway 99W
4. Post-RTP freeways, second phase, implemented 10 years after first phase (funded as a group)
 - i. Sunrise Corridor from I-205 to US Highway 26
 - ii. Mt. Hood Parkway from Division to US Highway 26
 - iii. Western Bypass from Highway 99W to the Sunset Highway
5. Arterial and existing freeways with V/C (for the pm 2 hr peak) greater than .9, (funded by 25% of total projected budget after RTP completion)⁴.

B. Lane Maximums

1. Arterial expansions are limited to five lanes, except principle routes which may expand to seven lanes
2. Freeway expansions are limited to eight lanes (six, plus two auxiliary lanes)

C. *Vehicle congestion tolerance:* The trigger for additional improvements not specifically outlined above is based on the highest V/C ratios exceeding .9 for the 2 hour pm peak period, subject to arterial/freeway funding constraints discussed above.

2. Transit improvements follow this schedule:

- a. Eastside light rail transit (LRT) - in place, Westside LRT completed in 2000.
- b. South Corridor LRT, from Portland CBD to Milwaukie (Clackamas Town Center), add in 2010.
- c. North Corridor LRT, from Portland CBD to Vancouver CBD/Vancouver Mall, add in 2020.
- d. Southwest Corridor LRT, Portland to Tigard, add in 2030.
- e. South/North Corridor LRT expansions, from Milwaukee to Oregon City and from Vancouver to

179th St., add in 2040.

f. Remainder of transit service to be provided by bus at the levels called for in the RTP.

3. Other:

- a. There is no demand management modeled in Base Case II, other than limited existing programs (e.g. Portland's downtown parking policy, Tri-Met's ride sharing program).
- b. Bridges follow same lane limitations as freeway and arterial except as noted here. Willamette River bridges: no widening of the Sellwood Bridge (but allowance for a new replacement bridge), no new Lake Oswego/Milwaukee bridge. Columbia River bridges: no change to Glenn Jackson bridge, I-5 bridge will have 1000 vehicle capacity added in the year 2010 to both directions, reflecting anticipated efficiency measures.

Concept A UGB Expansion Criteria

The UGB was expanded:

- first in exception lands (such as east Clackamas and Stafford basins).
- then in drainage basins with a high ease of sewerage rating (1 or 2)
- Areas "chopped up" by multiple limitations (slope, etc.) were not added (this only affected an area north of Sunset Hwy/Forest Park).
- EFU areas were added only after extensive exception areas added (except for small boundary adjustments in landscape units).

Appendix C

Methodology

Growth Allocation and Transportation Modeling

A primary goal of Region 2040 was to estimate a growth allocation for the concepts. Where would the region's million people and jobs locate over the next fifty years given the different 2040 alternatives? These differences depend on the assumptions made about choices people and businesses have. The assumptions are different for the Base Case, A, B and C concepts. Whereas, the Base Case offers the opportunity to locate to newly developed ex-urban land, the other alternatives limit UGB expansion and hence development is channeled, in varying degrees, towards existing urban areas.

Metro combined a land use allocation and a transportation model to help predict where people and jobs would locate over time given certain assumptions. The land use side of the model utilizes the extensive Regional Land Information System (RLIS) database for physical and planning attributes of the four county region. The transportation side utilizes Metro's travel forecasting model. Combining the two, Metro can anticipate where people and jobs would locate and what the transportation attributes would be of the alternatives.

The process of developing assumptions and policies used in the models has been an iterative process between Metro staff, local planners, and stakeholder groups. Members of the Metropolitan Regional Technical Advisory Committee (local planning directors and staff) and the Transportation Policy Advisory Committee

(agency transportation directors and staff) have participated in regular 'User Group' sessions to review the assumptions and policies used in the modeling exercise.

Base Case Modeling

For the Base Case, existing and past trends were projected forward fifty years. The overriding assumption is for a continued 20 year rolling land supply (consistent with State policy) within the UGB.

The development of a growth allocation model began with a nationally used land use and transportation demand model analyzing transportation, population and employment choices. This model developed by Dr. Stephen Putman is known as the DRAM/EMPAL model. Metro used the DRAM/EMPAL model to establish a workable 100 zone system for the Portland Metropolitan area. The 100 zone system was calibrated with the help of Dr. Putman for attractiveness and accessibility measures to accurately represent existing trends and choices for locational decisions in the 1985 - 1990 period. These include a few basic characteristics of choice, including land availability, transportation accessibility to jobs and home, and attractiveness of a location as broadly defined by household income characteristics.

SAM and the Metro Transportation Model

In preparing for the growth allocation exercise Metro derived its own model using the 100 zone system. The Spatial Allocation Model (SAM) uses many of the DRAM/EMPAL variables. The model interacts with Metro's EMME2 transportation model to update accessibility indices and adjust the population and employment allocation accordingly every five years.

The fifty year model run (from 1990 - 2040) required inputs for land use and transportation. The land use inputs included land availability in each zone, density constraints, and redevelopment assumptions. The transportation assumptions included freeway and arterial improvements or limitations, transit service levels and long range investments, and TDM assumptions (see Base Case, Chapter 2).

SAM accounts for vacant land in each zone, increasing the supply over time in outlying areas to meet the population and employment demand and fulfilling UGB land supply and related density and redevelopment assumptions. RLIS was used to determine land availability; taking vacant land, subtracting out factors for floodplains, steep slopes, parks and open space, accounting for rural parcelization patterns, and adjusting for public facilities such as roads and utilities.

The transportation model used in the Base Case was a scaled down version of the larger four step modeling process normally associated with Metro's 1189 zone system. The larger scale 100 zone SAM outputs meant EMME2 had to assume a mode split for

transit/auto to and from the central business district and to and from all other zones. This represented a simplification of the trip distribution and mode split calculation. These changes to the transportation model reflected the coarseness of working at the 100 zone level.

The outputs of the models described vacant land consumed, population and employment densities, road capacity and level of service, VMT per capita, travel times and speeds and more (see Base Case, Chapter 2). Plots or maps of the data were also created to graphically show the growth allocation and the transportation system.

The RLIS database used in calculating the available land supply was also used to map the growth allocation back to individual parcels, showing the projected distribution of people and jobs in the region. This "mapping-back" process required differentiating newly developed parcel groups in three categories: those within the current UGB, those in the Ex-UGB (newly expanded UGB), and those in the rural and emerging urban centers outside the metro area. These categories were used in SAM to determine phasing of allocation.

Fine Modeling of Base Case

The *fine modeling* process involved more detailed transportation modeling for 2040. The Base Case fine modeling switched from the abbreviated transportation model to the 1189 zone four step modeling process. This involved disaggregating the 100 zone allocation to the 1189 TAZs. The demographic household, income and age information accompanied the year 2040 population and employment allocation.

The HIA were stratified into four sub-groupings in each category (household size, age groupings, income classes). This HIA matrix for the TAZ's was used to run the four step transportation model, including: trip generation by purpose, trip distribution by origin and destination, mode split by auto, transit, walk, and trip assignment on the roadway and transit network. This model gave a much more definitive count of vehicle miles traveled, volume/capacity ratios, miles of congested roadways, travel times and speeds, transit share; all of which are useful for determining other measures such as air quality, monetary costs, and regulatory compliance.

Design of the Alternatives - A, B & C

Concepts A, B and C originated in Phase I of 2040. The three concepts reflected: A - expanding the UGB with relatively low density development; B - holding the UGB with denser land uses and more reliance on transit; C - diverting about one-third of the growth to satellite growth centers beyond the UGB, with some expansion of the UGB, and some increase in density inside the UGB.

In Phase II, A, B, and C were refined in greater detail by staff, reviewed by the User's Group, and modeled using the RLIS database. This process differed notably from the Base Case because it did not use the SAM allocation model to determine the population and employment allocation. However, all allocations were done beginning with the Base Case allocation of growth.

Therefore, the design allocations are estimates of modifications from a combination of current policy direction and the effect of recent trends projected into the future.

Concepts A, B, C relied on designs and policies to change zoning and densities in specific locations. SAM was not useable under the land supply constraints in A, B, and C; there was not the accessibility or attractiveness choices inherent in an ever increasing land supply.

Instead of using SAM, allocation in A, B and C was based on: 1) a combination of land use and transportation design parameters; 2) accounting for vacant land, changes to density, and redevelopment assumptions; 3) a capacity analysis and redevelopment evaluation. The transportation modeling was not an iterative part of this allocation process, but instead was done after the allocation was complete.

Allocations to rural and satellite locations were based on reference control totals for the entire region and assumptions about the percentages these outlying areas would receive. Metro recognized the difficulty in predicting the impacts of A, B, and C on surrounding communities beyond the UGB. The assumptions for each alternative allocated a percentage of population and employment growth to these satellites and rural areas, including assumptions for density and area changes.

Design

The initial A, B and C designs were sketched using the principles from Phase I and what had been learned about the Base Case. A large scale (1=3,000) base map was developed through RLIS that identified topography, floodplain, developed land, schools, transit lines, the UGB, resource lands, publicly owned lands, and more. Using mylar overlays each concept was sketched in reference to this base map data. *Centers* were drawn in relation to existing roadways and development. LRT and ten-minute bus corridors and *Mainstreets* were located. Greenspaces sites were identified and selected. The detail in the base mapped allowed this group to explore the ideas behind the concepts with precision. (No planning concepts included Clark County. The Washington side was deferred until the Oregon alternatives could be compared to existing long term plans Clark County is presently adopting under Washington State's Growth Management Act.)

The next step involved review of these initial designs by the User's Group; with specific attention to Phase I concept validation of A, B, and C to transportation system assumptions and to land use *design overlays*. Metro then digitized the designs in the RLIS format for mapping and preparation for RLIS Grid capacity analysis and allocation.

RLIS Grid System

RLIS can operate using polygon referenced data or using an equidistant grid cell system. The grid system allows quick analysis of multiple attributes for any given cell in the grid. By bypassing the complex calculations involving many differing sized polygons, the grid system offers a method to quickly assess complex relationships between variables.

Metro used the RLIS grid analysis to make quantified changes to the RLIS database and to calculate population and employment capacity of the alternative designs. Data used for this process included: comprehensive plans, vacant land, land value, improvement value, distance and location attributes.

This allowed for assumptions on zoning and density to be applied, or redevelopment analysis of building values, location, age of structure, zoning impact and more. This refinement of A, B and C through a process of RLIS database manipulation gives Metro the ability to tie concept policies to known attributes of the existing landscape.

Products

Products of the growth allocation modeling is a final description and map of each alternative. The description is intended to reflect the policies and assumptions behind each alternative, including the Base Case. Each alternative has a quantitative definition for land use and transportation components. This will give Metro a handle on how the projected population and employment can be accommodated.

A separate assessment of “descriptive indicators” that evaluate the alternatives for a number of other aspects follows. These include: air quality, water, infrastructure costs, housing affordability, open space, and sense of place (see Works in Progress, Chapter 6).

The refinement process also includes expert review by the User’s Group, review by local jurisdictions and the public. Judging the implementation issues and feasibility of the alternatives is a part of this process. Implementation analysis is expected to carry on beyond Phase II, and will be the emphasis of any work leading to the Regional Framework Plan adoption.

Metro GRID Data Layers

- Existing Land Use**
- Land Value**
- Land Value per Square Foot**
- Comprehensive Plan Designation**
- Improvement (building) Value**
- Improvement Value per Square Foot**
- Improvement Age**
- Average Rent**
- Average Density**
- Property Tax Rate**
- Site Access**
- Distance from Urban Growth Boundary**
- Distance from Freeway**
- Distance from Major Arterial**
- Distance from Secondary/Minor Arterial**
- Transit Availability**
- Sewer & Water Provider(s)**
- Sewer Service Rating**
- Slope**
- Wetlands**
- Soil Type**
- Floodprone Soils**
- Parks**
- Neighborhood Amenity Rating**
- Access to Employment**