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PLANNING IN THE CRAG REGION:  
**THE SECOND STEP**



Columbia Region Association of Governments



# COLUMBIA REGION ASSOCIATION of GOVERNMENTS

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A forum of cities and counties, centering on the Portland-Vancouver Metropolitan Area, established for the purpose of studying and discussing problems of mutual concern and recommending policies and action with a focus on comprehensive planning for the region.

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This document is second in a series of reports aimed toward adoption of a new regional comprehensive plan by 1976.

Contents include:

- Re-statement of Goals
- Interim Development Policy
- Regional Land Use Concepts
- Exploratory Proposals

July 1973

# PLANNING IN THE CRAG REGION: THE SECOND STEP

## STEPS TOWARD COMPLETION OF A COMPREHENSIVE PLAN FOR THE CRAG REGION

- STEP 1 ● SERIES OF MEETINGS, SPEECHES, PRESENTATIONS THROUGHOUT THE REGION TO EXPLAIN WHERE WE STAND & TO DETERMINE CONCERNS, OPINIONS & PREFERENCES OF ALL INTERESTS.  
(COMPLETED)
- PUBLISH: PLANNING IN THE CRAG REGION: AN APPRAISAL & NEW DIRECTION (SEPT 1972)
- STEP 2 ● EXAMINATION OF PROPOSED ALTERNATIVE LAND USE CONCEPTS  
(COMPLETED)
- PUBLISH: PLANNING IN THE CRAG REGION: THE SECOND STEP (JULY 1973)
- STEP 3 ● CONDUCT WORKSHOPS, PUBLIC MEETINGS, HEARINGS, ETC. TO DISCUSS RESULTS OF STUDIES & TO DETERMINE FINAL LAND USE CONCEPT.
- COMPLETE SUPPORTIVE ELEMENTS & PUBLISH A REVIEW DRAFT OF A PRELIMINARY REGIONAL COMPREHENSIVE PLAN.  
(JULY 1975)
- STEP 4 ● FURTHER STUDIES, MEETINGS, DISCUSSION... MORE STUDIES, MORE MEETINGS UNTIL BY MUTUAL GIVE & TAKE WE HAVE ARRIVED AT A FINAL REGIONAL COMPREHENSIVE PLAN WHICH IS MUTUALLY SATISFACTORY & READY FOR ADOPTION (JULY 1976)
- STEP 5 ● COMMENCE IMPLEMENTATION OF THE REGIONAL PLAN IN CONCERT WITH FEDERAL, STATE & LOCAL UNITS OF GOVERNMENT.



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"WOULD YOU TELL ME, PLEASE, WHICH WAY I OUGHT TO GO FROM HERE?"

"THAT DEPENDS A GOOD DEAL ON WHERE YOU WANT TO GET TO," SAID THE CAT.

"I DON'T MUCH CARE WHERE..." SAID ALICE.

"THEN IT DOESN'T MATTER WHICH WAY YOU GO," SAID THE CAT.

"...SO LONG AS I GET SOMEWHERE," ALICE ADDED AS AN EXPLANATION.

"OH, YOU'RE SURE TO DO THAT," SAID THE CAT, "IF YOU ONLY WALK LONG ENOUGH."



**PART I**  
**THE SECOND STEP**  
**IN BRIEF**

## Editorials

# The Oregonian

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SATURDAY, APRIL 28, 1973

## Planners battle sprawl

The staff and General Assembly of the Columbia Region Association of Governments, charged with long-range planning for development in the five-county Portland-Vancouver metropolitan area, have been at work for some time on that mission. But it has come to be understood that it is not an overnight job. Latest forecast is that a Regional Comprehensive Plan cannot be completed before July, 1976.

The region cannot be expected to stand still for the next three years or so. Therefore, the General Assembly of CRAG recently adopted a set of guidelines intended to prevent development getting out of hand in that time.

CRAG has delineated five zones on the regional map as a recommended pattern of priorities of growth. First priority would be given areas already with sewers or with sewers funded; second, unsewered areas urbanized or surrounded by development; third, areas programmed for sewers or within an incorporated area; fourth, unsewered areas in which public water service is available and land use zoning permits urban use; fifth and last, areas without either sewers or public water, but in which land use zoning permits urban use.

What CRAG is proposing is that development, at least in the three-year interim period, be guided by the availability of sewers and water supplies. The purpose, in the words of the CRAG resolution is to discourage "the proliferation if public services into undeveloped areas thereby lessening the degree of urban sprawl and encouraging better utilization and a higher economic return on existing facilities."

Those are sensible objectives whatever may be the eventual development of transportation facilities, public works, parks and open space and other matters on the region's drawing boards.

CRAG maps of the suggested five priority zones have gone out to the five counties and 31 cities cooperating in CRAG planning. The criticism and suggestions of these local governments have been invited by May 28. When these have been analyzed and approved by the CRAG Executive Board, public hearings will be held, one in each of the five counties, looking toward final approval of the interim plan by the 28-member CRAG General Assembly on July 19.

This project is lacking in the elements of drama, but it is one with a potential of great effect on the more than one million current residents and all future residents of the five-county area. It should have the highest priority in the attention of county and city planners and governing bodies.

THIS REPORT COMPLETES THE SECOND STEP TOWARD ADOPTION OF A REGIONAL COMPREHENSIVE PLAN BY JULY 1976. OUR REPORT FOR FISCAL 1971-72 LOOKED AT THE STATUS OF REGIONAL PLANNING AND AT PROBLEMS FACING OUR WAY OF LIFE AS WE NOW KNOW IT. IT PROPOSED A NEW SET OF GOALS AND POLICIES AS THE FRAMEWORK FOR THE NEW PLAN.

THESE GOALS & POLICIES HAVE BEEN FORMALLY ADOPTED BY THE EXECUTIVE BOARD. THEY ARE THE FOUNDATION FOR THE LAND USE PLANNING PROGRAM UNDERTAKEN DURING FISCAL 1972-73, AND FOR THE LAND USE CONCEPTS AND PROGRAM PRESENTED IN THIS REPORT.



# THE SECOND STEP IN BRIEF

## INTRODUCTION: THREE MILESTONES

Three unprecedented yet little-heralded actions were taken during the 1972-73 program year, far-reaching actions that sooner or later will affect beneficially nearly everyone in the CRAG region.

The first action occurred on the first of March, when the members of the CRAG General Assembly, acting on the recommendation of the Executive Board, resolved to ask the Oregon State Legislature to enact a bill to create a regional planning body with mandated membership for cities and counties within the area and authority to review local plans and codes for conformance with adopted regional policies and plans.

As a result of this action the State Legislature passed SB 769, known as the "CRAG Bill". Passage of the Bill is a significant step. Even more significant is the shared awareness of common region-wide interests indicated by the initiation and endorsement of the Bill by CRAG cities and counties, and the recognition that the parts of the CRAG area are so interdependent that a voluntary association to promote cooperation between governments simply is not enough.

The second unprecedented action occurred on the nineteenth of April when the members of the CRAG General Assembly, acting again on a recommendation of the Executive Board, unanimously endorsed a proposal for an Interim Regional Development Policy. That action meant that the cities and counties of the region

agree to participate in completing a policy to guide new urban growth into limited priority areas, mapped on the basis of regional needs and regional criteria. The action was recognized as a means of keeping land use options open while allowing time for the completion and adoption of a new regional plan (in accordance with the "Regional Planning Sequence" diagrammed on page 3 ) that would not be obsolete the day it was published.

Endorsement of the Interim Regional Development Policy is a formal sign of agreement by local governments on the general objective of stopping the proliferation of public services such as water and sewers into undeveloped areas, thereby lessening the degree of urban sprawl and encouraging better utilization and a higher economic return on existing facilities. Endorsement of the Development Policy represents (1) recognition that a regional comprehensive plan is very much needed, and (2) a degree of commitment beyond the talking stage to a policy of guiding and directing new urban development as necessary.

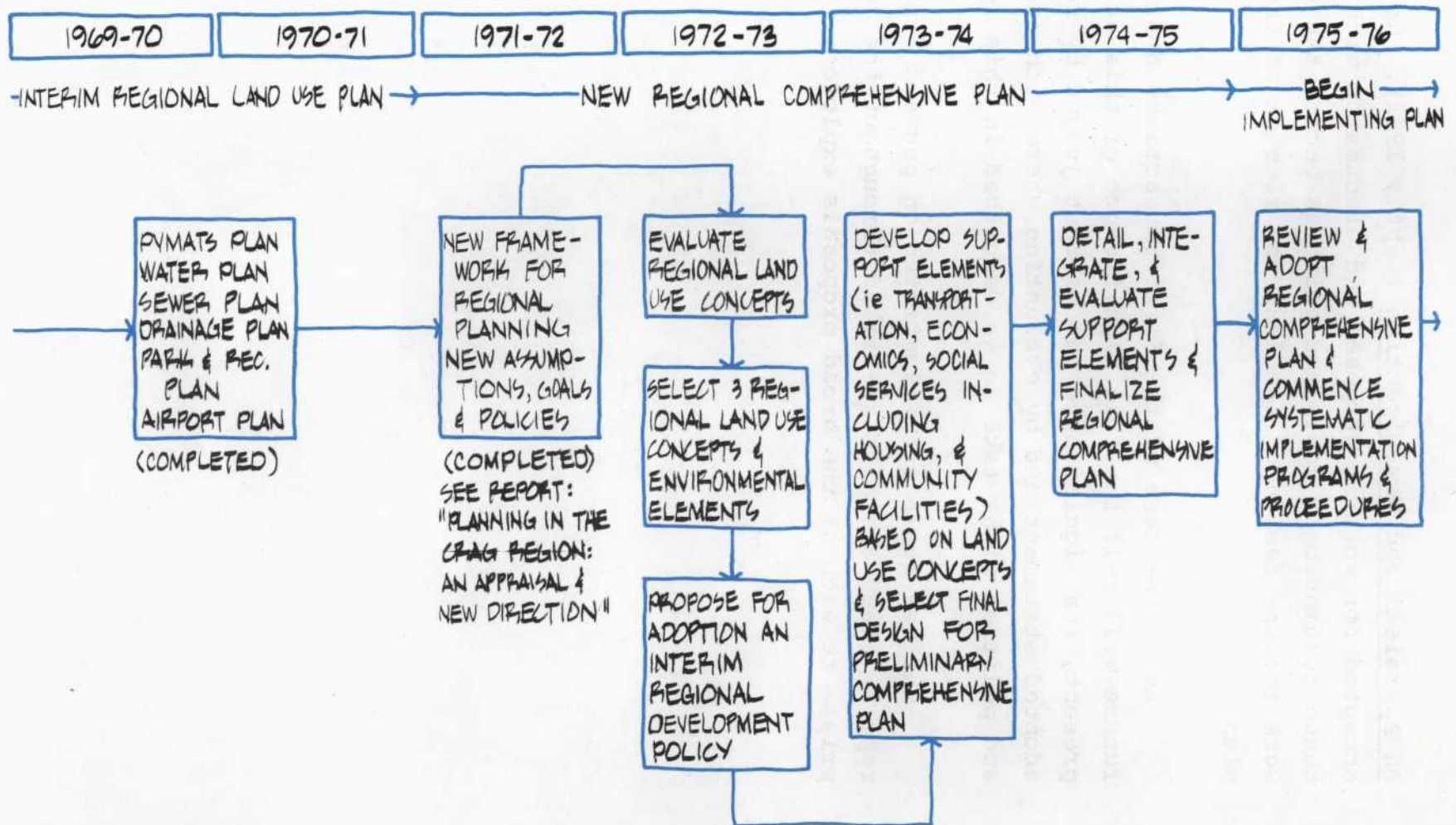
The future will reveal the full implications of this policy and this commitment. At the least, we are a step closer to agreement on specific criteria for defining appropriate, inappropriate and priority areas for development when looking at the region as a whole. More than just an interim holding action, the Development Policy is itself a building block for the Regional Comprehensive Plan. It represents an action which no local jurisdiction in competition for tax base with other jurisdictions could afford to take by itself, but which becomes possible through the strength of joint action.

The third unprecedented action was one taken by the CRAG Executive Board on May 18, 1973, when the Board formally adopted by unanimous vote the new assumptions, goals and policies first published in the report entitled Planning in the CRAG Region:



# REGIONAL COMPREHENSIVE PLANNING SEQUENCE

## FISCAL YEAR SCHEDULE



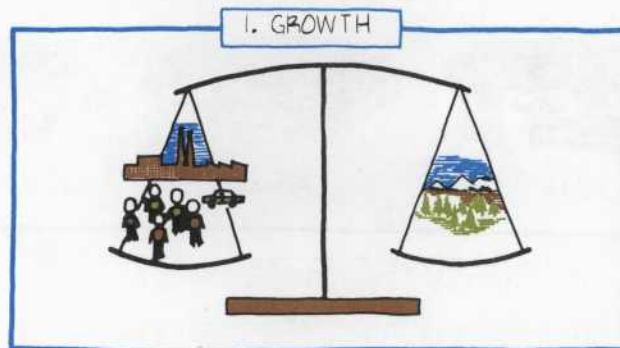
An Appraisal and New Direction (Sept., 1972). No longer simply accepted for working purposes and discussion with the public, these assumptions, goals and policies became the official framework for the design of the land use element of the comprehensive plan.

As in the case of the first two actions described, only the future will tell the full significance of this action. For the present, its significance can be best judged by reading the adopted statement and by evaluating where such assumptions, goals and policies might take us as described in this report.

The new goals are illustrated on pages 5 to 9 of this report. They are also re-stated throughout the report as appropriate to each of the broad proposals explored.



# NEW GOALS



BALANCE POPULATION GROWTH, INDUSTRIALIZATION & REGIONAL RESOURCES SO THAT...

RENEWABLE RESOURCES CAN PRODUCE A SUSTAINED YIELD...



NON-RENEWABLE RESOURCES CAN BE CONSERVED...



AND QUALITY OF LIFE IS ENHANCED

## 2. SETTLEMENT



URBAN



RURAL



UNINHABITED

PLACE SETTLEMENT SO THAT IT FITS THE REGION'S...

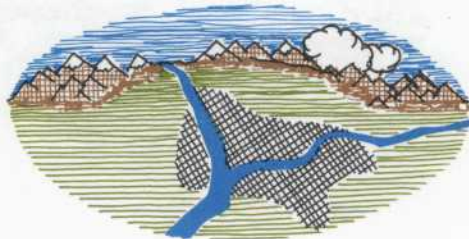
LANDSCAPE...



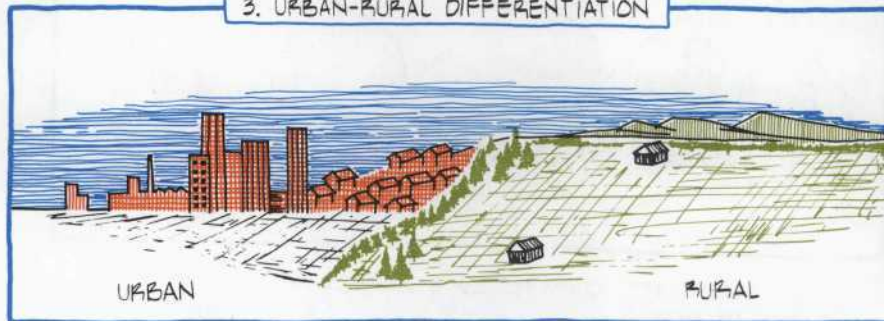
RESOURCES...



LAND CAPACITY...



### 3. URBAN-RURAL DIFFERENTIATION



SEEK A RECOGNIZABLE & DISTINCT DIFFERENCE BETWEEN URBAN & RURAL SETTLEMENT SO THAT...

THE PROBLEMS OF CITY LIFE CAN BE DEALT WITH MORE EFFECTIVELY...

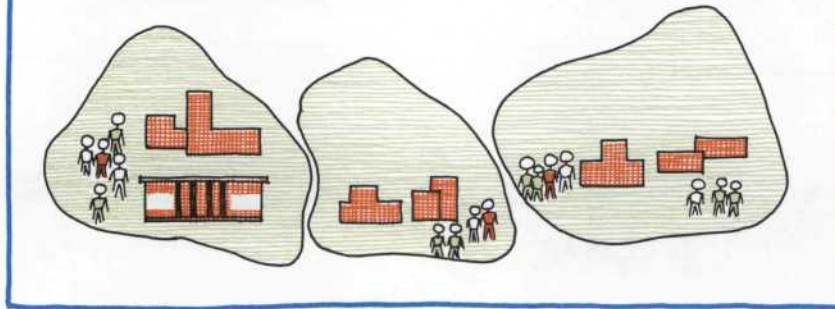


AND ROOM FOR A RURAL WAY OF LIFE CAN BE PRESERVED...



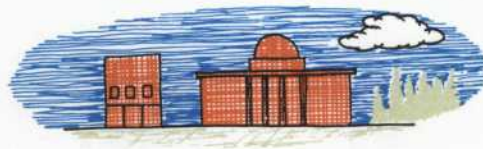


#### 4. COMMUNITY IDENTITY

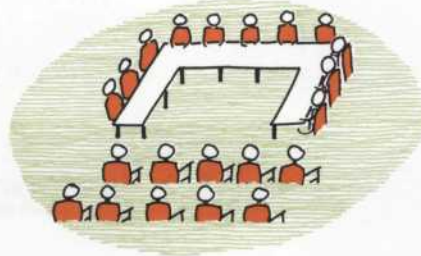


ACCENTUATE COMMUNITIES & NEIGHBORHOODS  
SO THAT...

A SENSE OF BELONGING & PRIDE IN COMMUNITY  
IS STRENGTHENED...

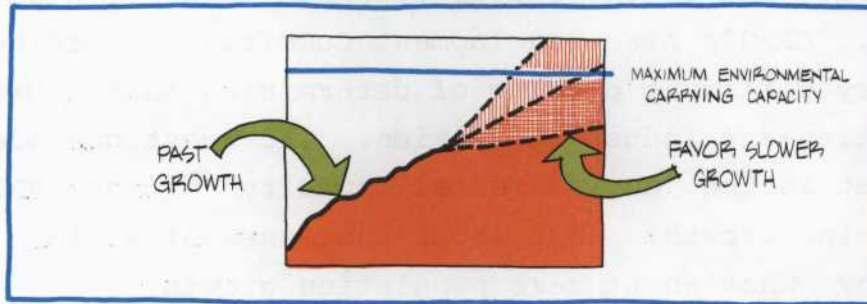


AND CHANCES FOR BETTER SOCIAL INTERACTION &  
CITIZEN INVOLVEMENT ARE INCREASED.



# IMPLICATIONS...

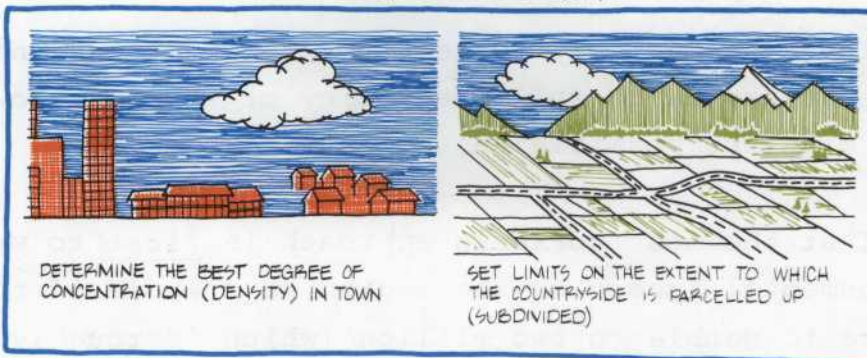
## 1. POPULATION LIMITATION



## 2. URBAN CONTAINMENT



## 3. URBAN-RURAL DENSITY



## THE ISSUE OF HOW MANY PEOPLE

(Part II of this report, pp.21 to 34)

The new regional growth goal is to determine what overall level of population and industrialization can be supported in the CRAG region and still maintain, on a permanent or "sustained yield" basis, all of the resources which make for quality of life here. CRAG's Area Development Committee accordingly took on the very difficult problem of determining that elusive level of population and industrialization. The questions addressed were: What is the "environmental capacity" of the CRAG region for absorbing growth? What about the issue of a limit on population? What about zero population growth?

Tentative conclusions to these questions taken from the discussion in Part II of this report are:

1) That environmental capacity is too elusive to get a handle on for the time being, since the many technical questions and the myriad of value judgements involved would necessitate more studies than appear feasible within the time constraints being faced by CRAG;

2) That the best way to keep our options open until we have more answers is to follow a policy of slowing growth wherever that might be possible; and

3) That the most workable approach is first to evaluate the environmental impact on the region as a whole if the population were to double to two million (which is roughly the highest projection for the year 2000), and second, to evaluate the environmental impact of alternative settlement patterns or land use concepts designed to accommodate two million people. We can then make adjustments for an environmental capacity



which is greater than two million, or pull back if a smaller figure is indicated.

#### ENVIRONMENTAL IMPACT OF POPULATION GROWTH

(See pages 34 to 43)

To answer the question as to the environmental impact of a doubling of population on the region as a whole, the Area Development Committee turned to a pioneering work by the Urban and Rural Lands Committee of the Pacific Northwest River Basins Commission entitled Ecology and the Economy (Discussion Draft, March, 1972). That report, though exploratory and controversial, indicated that something less than a doubling of the population in the five-state Pacific Northwest study area will bring us to a point beyond which quality of life as we now know it will begin to deteriorate. The reasons will be shortages of natural resources, pollution, and overuse of outdoor recreation resources.

This conclusion is reinforced by the current energy crisis. It is further reinforced by studies coming out of MIT concerning world-wide limits to growth, and by a new report from the U.S. Geological Survey that rapid industrial growth has seriously depleted proven reserves of nearly all key minerals. That agency claims that mineral shortages eventually could threaten not just U.S. affluence but civilization as it is now known.

These concerns are countered by other observers with the more optimistic proposition that technology we have not yet dreamed of will find substitutes to pull us through. In any event, identification of the limits of the tangible resources in the CRAG region is a matter for continuing attention at all levels of government and by the public at large.

There is also a further consideration, which has to do with intangible values inherent in our natural resources. These values are the intangible and subjective aspects of the rivers, lakes, forests, mountains, birds, fish and wildlife and all that they provide to make our area a desirable place to live and a magnet for visitors.

Population growth has impacts on these intangibles experienced in varying degree by most everyone, although difficult to measure except in indirect "external" terms. The intangibles differ from tangible resources in that, once lost, there are no technological substitutes.

Prospective impacts of population growth on the intangibles are suggested by the dramatic and measurable increase in outdoor recreation activities of all kinds and, for example, by foreseeable development of the Mt. Hood community to accommodate as much as thirty times its present residential and visitor populations. Even with no increase in population, prospective rising family incomes, shorter work weeks and longer vacations would result in a manyfold increase in the use of outdoor recreation resources.

These considerations point to serious negative impacts on the environment and quality of life in the region as a whole if population doubles to two million. Just how serious depends finally on where your values lie.

CRAG views the desirability of keeping our intangible natural resources from being over-used or even destroyed by over-use as a goal which is recognizable and supportable by most people in the region. This has been stated in somewhat more general terms in the adoption of the regional growth goal (see page 5 ). Our continuing concern will be to determine at

what point use of these natural resources becomes over-use.

ENVIRONMENTAL IMPACT OF SETTLEMENT PATTERNS FOR 2 MILLION

(Part III of this report, Regional Land Use Concepts,  
pp. 45 to 81)

The next question to be tackled by the Area Development Committee, following the question of the overall impact of population growth, was the environmental desirability of alternative settlement patterns which could be designed for a doubling of population to two million. This required a study of density patterns and development of gross density standards. Areas fully committed to urbanization by virtue of decisions already made were identified. The population they could hold at full development according to the density standards adopted was determined. Then a computation was made of the number of additional square miles which would have to be converted to urban use to support the remainder of a total regional population of two million people.

The next step was to sketch several regional land use concepts using these design parameters. Each alternative was sketched against background data on natural and man-made conditions, working within the adopted goals for regional settlement, urban-rural differentiation, and community identity. Finally, more detailed preliminary land use plans were drawn showing population density patterns, regional open space, and major commercial, industrial and other centers.

This planning process, the preliminary plans which have resulted, and the environmental impacts of alternative settlement patterns are described in Part III and later sections of this report. In brief, each of the alternatives attempts to



meet the regional settlement goal of achieving a settlement pattern which respects the capacity of the land to sustain development without sacrificing primary values, i.e. those values which most of us hold in common. Each settlement pattern concept shows a pronounced and recognizable distinction between urban settlement and rural and uninhabited areas. Each is designed to eliminate urban sprawl. Each pattern is intended to promote a sense of community identity by providing a framework within which distinct community and neighborhood areas can be shaped.

Within this perspective the settlement pattern concepts have important differences. One alternative explores the concept of concentrating new development within and adjacent to existing urban development, with only limited expansion of the outlying cities. It attempts to give special emphasis to efficiency in the provision of urban public services. The dispersion alternative, on the other hand, gives special emphasis to the clustering of new development in outlying locations. A third alternative combines features of both concentration and dispersion.

The alternative settlement patterns would differ from today in that their use of urban land would be more intensive. More public open space would need to be acquired within the urban area to off-set the loss of privately-owned vacant land under pressure for development. Positive action would be required in rural areas to limit further parceling of the countryside.

An important result of the regional design process was the discovery of the degree to which the design of any future settlement pattern must be similar to what we have today, given the objectives of curbing sprawl, protecting rural areas and open spaces, developing land already committed to urbanization, and

holding population at the design level of two million. Every small addition to urban sprawl (which in the absence of a constraining interim development policy could occur through the period during which the regional comprehensive plan is completed, debated and adopted) narrows our options still further, since it effectively commits relatively large amounts of land to urbanization by making bypassed parcels unattractive for continued non-urban uses.

#### OTHER RELATED STUDIES

As this sketch planning was going on, preliminary studies were being made on a number of related matters. The status of land use zoning currently in effect in the region's cities and counties and, to a lesser extent, the status of other codes and ordinances affecting urban development were examined. The purpose was to determine how well these regulations fit and support the new regional development framework. The idea of a regional capital improvement program for directing urban growth to priority areas was examined also. Finally, we took a preliminary look at how property assessment and tax laws and policies affect urban growth patterns, and how they might be changed to promote our new regional goals. These studies provided impetus to the proposals which follow.\*

#### AN EXPLORATORY SIX-POINT PROGRAM

(Part IV of this report, pp.83 to 197)

This past year's planning points to the conclusion that

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\* Additional perspective was provided by projecting regional growth patterns to 1980 and 2000, based on socio-economic criteria. These projections show where growth is likely to occur in the absence of more controls and where controls and/or incentives may be needed to redirect growth to meet new goals.

# A SIX-POINT PROGRAM

## SHORT RANGE — FOR IMMEDIATE ACTION BY CITIES & COUNTIES

### 1 ADHERENCE TO THE INTERIM REGIONAL DEVELOPMENT POLICY

Cities, counties, special districts and the metropolitan boundary commission should adhere to an Interim Regional Development Policy pending adoption of a regional comprehensive plan. This means providing urban services and allowing urban development in accordance with criteria and designated priority areas to be adopted by joint resolution by all units of government within the CRAG area. Emphasis should be on discouraging subdividing or land parceling activities outside the priority zones when such activities would narrow future options by decreasing the attractiveness of rural or other open space uses. See pages 87 to 103.

## LONG RANGE — FOR PUBLIC CONSIDERATION IN CONJUNCTION WITH REGIONAL LAND USE CONCEPTS

### 2 POPULATION GROWTH GUIDELINES

Consider the positive and negative impacts of adopting a regional growth policy on (1) the economy, (2) social and governmental costs, (3) unique natural features and other aspects of the environment, and (4) other factors related to quality of life in the CRAG region. In light of such impacts consider the overall desirability of a program to keep population within design limits determined for the regional environment. Re-evaluate city, county and other governmental activities from the standpoint of how these activities tend to encourage or to discourage growth in various locations. Consider new methods to guide population growth into density patterns required by the regional comprehensive plan. See pages 105 to 113.

### 3 ESTABLISHMENT OF REGIONAL ZONES & REVOLVING FUND

Consider designating four regional-level zones in the CRAG area: Urban, Rural-Residential, Agricultural, and Conservation. The intent would be (1) to permit land uses and densities appropriate to each zone and (2) to use existing city and county land use zoning authority, provision of public services, utility rate structures, and other existing governmental policies and activities to further the basic purposes of each zone in accordance with the regional comprehensive plan. Consider, in addition, creation of a revolving fund at the regional level for use by CRAG and local governments to implement the plan as it pertains to each zone, by facilitating purchase of development rights, assembly of land for urban or rural purposes (with or without sale or lease-back), and reservation of needed public open space or sites for public facilities. See pages 115 to 125.



# TO MEET REGIONAL GOALS

## 4 DEVELOPMENT PROGRAM FOR URBAN ZONES

Within the regional Urban Zones, establish priority areas for (1) urbanization, (2) renewal or rehabilitation, and (3) protection. Consider scheduling public capital improvements, and acquiring permanent public open space to compensate for increased intensity of development, based on the special needs and priority of each area from both regional and local standpoints. Use the proposed regional revolving fund to help assemble sites to meet housing, industrial, open space and other needs as called for by the regional comprehensive plan. Consider charging the true costs of the extension of public services directly to the new developments which benefit, including the contribution by developers of cash or sites for public facilities such as schools and parks. See pages 127 to 157.

## 5 RESOURCE MANAGEMENT & DEVELOPMENT PROGRAM FOR NON-URBAN ZONES

Consider stabilizing the regional Rural-Residential, Agricultural and Conservation Zones by: (1) placing constraints on further parceling or subdivision of the countryside; (2) establishing performance standards to govern land use changes, particularly with respect to locating second homes, recreation service centers, and other resource-oriented activities; (3) re-assembling designated parcels into workable-size tracts for rural and resource uses, through use of the proposed regional revolving fund; and (4) negotiating for development rights, purchase and lease-back, and purchase and sale-back with restrictions, in accordance with comprehensive plan objectives for each of these regional Zones. See pages 159 to 176.

## 6 REVISION OF THE PROPERTY TAX SYSTEM

Within the regional Urban Zones consider the desirability of gradually shifting the property tax away from taxation of land and improvements and toward site value taxation (i.e. "untaxing" improvements), in order to promote development and renewal by the private market. Outside the Urban Zones, consider gradually shifting the tax primarily to improvements. Consider devising a special gains tax to capture extraordinary profits resulting from changes in land use made possible by public actions or investments. Consider overcoming fiscal disparities between jurisdictions through a regional revenue-sharing formula. See pages 177 to 197.

TRAFFIC LIGHTS INFRINGE ON FREEDOM OF ACTION, BUT BY PERMITTING THE SYSTEM TO OPERATE INSTEAD OF BOGGING DOWN IN A GIGANTIC TRAFFIC JAM THEY PRESERVE FREEDOM TO PURSUE MORE IMPORTANT GOALS.

CONTROL HAS ALWAYS BEEN NECESSARY IN SOME FORM OR OTHER. THE ISSUE IS WHAT KIND & TOWARD WHAT END.

BUT CONTINUED GROWTH, OVER THE LONG RUN, WILL REQUIRE MORE GOVERNMENT REGULATION & MORE RESTRICTION OF INDIVIDUAL FREEDOM THAN WOULD CONTROLS EXERCISED TO MINIMIZE GROWTH.

we now need to focus on some specific proposals for meeting regional goals. We believe that CRAG can get the best reading on perceptions, needs, values, and impacts by offering some proposals for public response. These proposals are in the form of an explanatory SIX-POINT PROGRAM TO MEET REGIONAL GOALS, designed to accompany the three regional land use concepts just summarized from Part IV of this report. The program is outlined on pages 16 and 17. A full explanation is given in Part IV. The environmental impact of the Six-Point Program, insofar as it can be seen at this point, is discussed in Part V of this report.

Any one of the points in the Six-Point Program could be studied in virtually endless depth, but to do so would be premature until we know, as a result of sounding out the public with respect to the basic thrust of the program, where limited time and staff resources are most needed. The second step in the new direction of planning in the CRAG region is only that, and there is more work for all concerned before we will achieve agreement on a feasible, equitable and visionary regional comprehensive plan. Some of the unanswered questions and next steps are noted in Part VI of this report. The next step which is most crucial is the obtaining of feedback from the cities, counties, interest groups and citizens on the issues raised by our proposed land use concepts and exploratory Six-Point Program.

**C. R. A. G.**  
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"When someone tells you that growth increases the tax base ask him to list for you the growing cities with growing tax bases - and with declining tax rates."

"Rather than making communities prosper by bringing in more people, business and tax revenues, growth actually can place such a demand on roads, schools, water supplies, sewers, police and fire departments that many localities are hard pressed to break even fiscally."

"Last year there were 900,000 visitors to Mt. Hood. The Forest Service expects that figure to increase by five percent annually and to reach 1,800,000 in 20 years."

-- Preliminary Plan,  
Mt. Hood Community, 1972

"Is it possible for the Forest Service, the Nature Conservancy, the Highway Dept. and BLM to work to acquire the private land within the Sandy Corridor? Perhaps all from ZigZag east to Government Camp. It is obvious from recent development announcements that there is not much time left for this area.

I hope the private and public citizens of Oregon will stand firm against runaway development on Mt. Hood. Mt. Hood is much too precious to leave in the hands of a few developers."

-- from a letter received  
by the Forest Service

## PART II

# HOW MANY PEOPLE?



# Portland has critical shortage of low-cost housing units

By PETER MORGAN  
of The Oregonian Staff

Portland is critically short of low-cost housing.

It is a fact admitted by public officials, landlords and especially tenants. It is an issue that has been tossed from the federal to state to local governments, and there is no solution in sight.

The shortage is caused by inflation, rising costs and increasing demand. Its most immediate effect is on the fixed or limited income

There are no exorbitant rents available on the market because they are being paid by persons who are not able to pay more.

The Housing Department has been unable to find a solution to the problem of low-cost housing.

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THE OREGON JOURNAL, TUESDAY, JUNE 5, 1973

4M

## Energy Crisis Grows; Sharing Of Cars Proposed

Landlords argue that rent control is not the answer, but higher rents are forcing people to live in substandard housing. The city has been unable to find a solution to the problem of low-cost housing.

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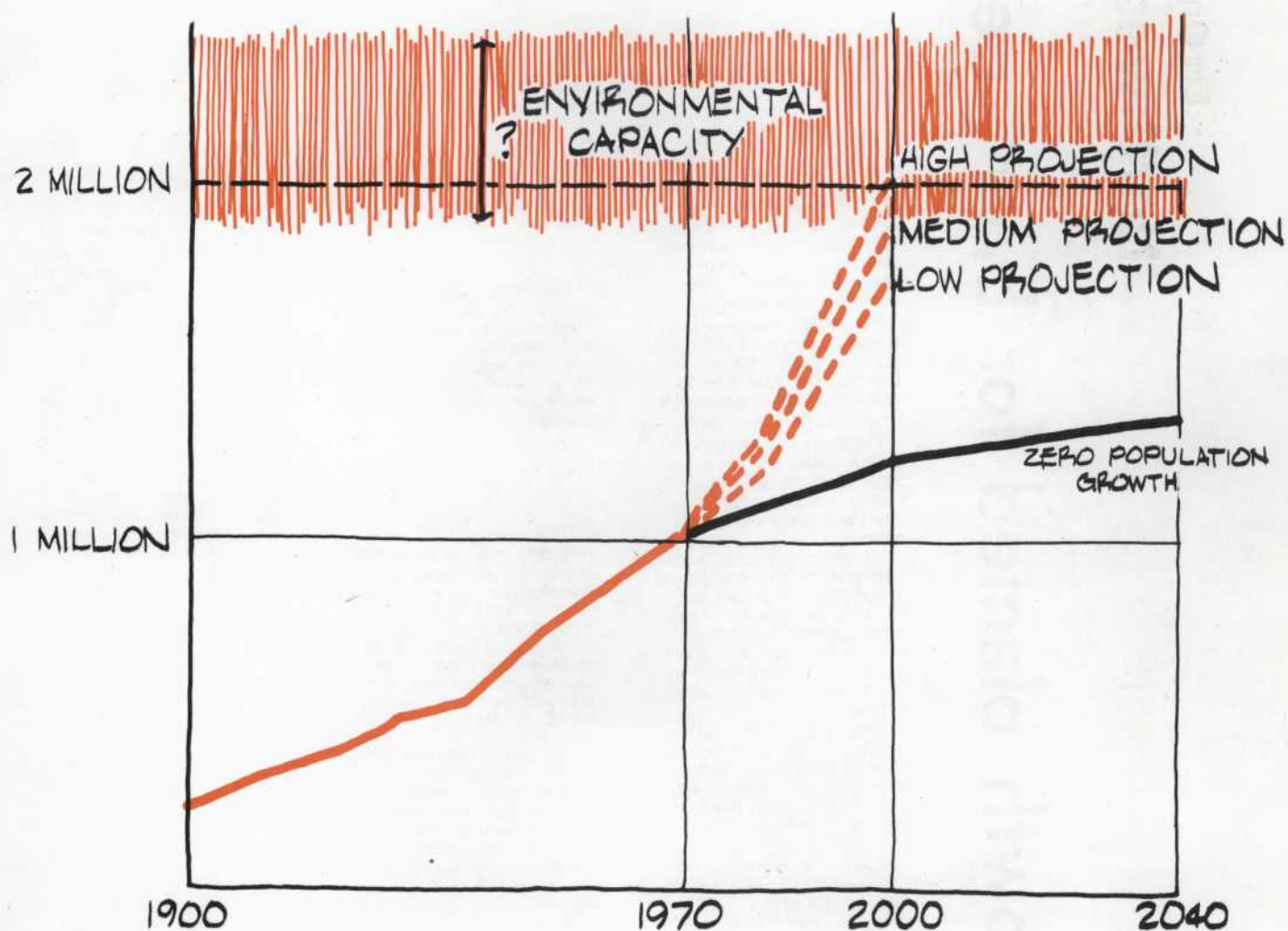
Energy Crisis Grows; Sharing Of Cars Proposed

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Energy Crisis Grows; Sharing Of Cars Proposed



# REGIONAL POPULATION GROWTH



# Rapid growth blamed for Evergreen woes

By BILL KELLER  
of The Oregonian staff

VANCOUVER, Wash.—Like the tornado which tore through here one year ago, the Evergreen teachers strike has left its scars.

But unlike last year's catastrophe, the wind which hit the Evergreen School District in east suburban Vancouver two weeks ago cannot be called a "freak storm."

The strike is a symptom of severe crisis, and the crisis, most residents of this community realize, is the product of cancerous development.

"If you could sum up the problems of the Evergreen School District in one word, it would be 'growth': Too much too soon," said Gretchen Starke, an Evergreen housewife and advocate of limits on residential development.

Evergreen is the fastest growing school district in the state of Washington. Schools have been stuffed to choking with children from the housing developments which seem to pop up overnight.

Student enrollment, now about 7,500, has doubled in the past six years. It is expected to double again in another seven years if the present 11.2 per cent population growth rate continues.

Two elementary schools and a junior high school are double-shifted shortly after noon every day, one whole set of teachers, principal, students coaches and secretaries moves out, and a new set moves in. Even the names of the double-shifted schools change at midday.

Moreover, the district's leadership has been hamstrung by persistent financial problems. Evergreen regularly outgrows its budget, and Washington law does not allow school districts a tax base.

Thus the school board members who sat down with teachers last November to hammer out a new contract were not inclined to be free-handed with the budget. And the teachers, impatient with double-shifting, overcrowded classes and restrictions on planning time, were not inclined to take no for an answer.

Last year after two years of failure at the polls the district managed to pass a bond measure to build two elementary schools and a high school. The elementary schools are expected to be ready for use next fall, the high school by the first of next year.

As soon as the students move into the new buildings, the district will again be full to capacity. This year the district sought another \$3.8 million building bond for three more elementary schools and a junior high. The measure lost twice and, under Washington law, cannot be resubmitted until January.

"We don't anticipate double-shifting again next year after the new high school opens," McKenzie said, "but the way this district is growing we can never say for sure."

McKenzie is not kidding.

Since 1970, 3,234 lots have been given preliminary approval for development in the Evergreen district. Another 719 lots are planned in applications still awaiting approval, and many more are anticipated. Planners estimate the new developments bring in about two children per unit.

A more immediate answer may be to control the growth in the district. The school board has asked for such controls, and county has talked at length about them, but they face unresolved legal questions.



## REGIONAL POPULATION GROWTH

There were 1,037,000 residents counted in the five-county CRAG region by the 1970 U.S. Census. As of July 1, 1972, the officially certified population had risen to 1,079,570. In 1968 CRAG published a regional economic profile with employment and population projections indicating there would be 1,755,000 people by year 2000, a figure which did not then include Columbia County. A new 1973 study by the CRAG Research Division places year 2000 population in the CRAG region in a range from 1,741,000 to 2,010,000, with a middle figure at 1,864,000, inclusive of Columbia County. These figures are graphed on page 23 (see appendix 3, page 240, for details).

These are "business as usual" projections, which consider past trends and place the CRAG area in the perspective of national and regional economic and demographic factors. Migration accounts for roughly two-thirds of the total increase in the high projection. The high projection assumes the highest likely migration rate for the period; the low projection assumes a relatively low migration rate, although not the lowest conceivable one. Variable birth rate assumptions were used to project the remainder of the population increase for each projection series.

"Business as usual" projections show what is likely to happen in the absence of any changes in policies and programs at the Federal, state or local level which would affect population growth or distribution. Proposals are being debated at all three levels. An example at the National level is The Report of the Commission on Population Growth and the American Future (March, 1972).

Some proposals are designed to affect the birth rate by encouraging smaller families. Other proposals look to a national

settlement policy or land use policy, a state settlement policy, or a regional settlement policy and hence are intended to affect migration from one area to another. CRAG projections might be affected, for example, by implementation of a state policy tailored to revive declining communities east of the Cascades and to slow population growth in the Willamette Valley.

#### POPULATION GROWTH IS INEVITABLE, AT LEAST FOR A WHILE

What if we were to achieve zero population growth in the CRAG region? The answer to this question is that growth would continue for about 70 years before levelling off at a stable figure.

Population growth occurs (1) when the number of in-migrants to the region is greater than the number of out-migrants and (2) when the number of births exceeds the number of deaths. Zero regional population growth could be achieved if the number of people moving out equalled the number moving in and if the fertility rate stayed at the replacement level of 2.11 births per woman for about 70 years. Alternatively, it could be achieved under conditions of a higher fertility rate combined with net out-migration (highly unlikely), or a lower fertility rate combined with zero net in-migration.

If zero net migration and replacement level fertility were achieved immediately, the regional population would increase to 1.23 million by year 2000, according to an analysis provided by the CRAG Research Department. It would stabilize at 1.35 million by about year 2040. This growth curve is compared on page 23 with CRAG's "business as usual" projections.

Continuing growth in the CRAG region thus is inevitable

for the foreseeable future. The public policy alternatives are a choice between actions to minimize the growth rate or to continue as we have been.

#### THE CASE FOR SLOWING POPULATION GROWTH

CRAG's adopted policy, spelled out in Planning in the CRAG Region, An Appraisal and New Direction, is to conserve non-renewable resources and refrain from promoting in-migration and population growth, in order to keep our options open. The report rejects the traditional approach of planning to accommodate whatever growth is forecasted. Instead it recommends that planning should focus on trying to determine the level of population which can be supported without depleting natural resources or lessening quality of life.

A case can be made for slowing future population growth to the extent that we may be nearing the capacity of our tangible and/or intangible resources to maintain quality of life as we now know it. We have much to learn about the capacity of our resources. We know, however, that population growth will have a "multiplier effect" on our demands -- such as the use of energy, consumption of natural resources, conversion of land to urban uses, the use of the private auto, booming outdoor recreation and so on. The extent of this multiplier effect will depend on the extent to which increasing family income continues to make it possible for such demands to increase faster than population, and to the extent that resource availability permits.

Growth rates for a number of these factors in the CRAG region are compared graphically with population growth from 1960 to 1970 on page 28. The length of the rate of increase

# MULTIPLIER EFFECTS OF REGIONAL POPULATION GROWTH 1960-1970

## POPULATION

844,300 → 1,035,900

## HOUSING UNITS

298,800 → 368,500

## SINGLE FAMILY

243,700 → 273,900

## MULTI-FAMILY

51,200 → 82,800

## TOTAL EMPLOYMENT

298,800 → 368,500

## SQUARE MILES URBANIZED

191 → 267

## INCOME (MEDIAN FAMILY IN DOLLARS FOR SMSA)

6,300 REAL GROWTH 8,600 INFLATION 10,500

## MOTOR VEHICLES

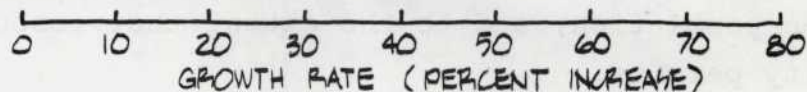
437,000 → 767,000

## DAILY PERSON TRIPS (WITHIN URBAN AREA)

1,700,000 → 2,900,000

## TRANSIT DAILY RIDERSHIP

60,000 (NEGATIVE) 119,700





bar for real income is 1.6 times the length of the bar for population. Square miles urbanized increased at a rate which was 1.8 times the rate for population. Motor vehicles increased at a rate which was 3.3 times the rate for population.

Making the case for slowing population growth nationwide, John D. Rockefeller, III, concluded in transmitting The Report of the Commission on Population Growth to the President and Congress that "we have looked for, and have not found, any convincing economic argument for continued population growth." In the judgement of the Commission, "the plusses seem to be on the side of slowing growth and eventually stopping it altogether." Some of the related Commission findings are quoted on pages 30 and 31.

More recently, the U.S. Geological Survey released a new report in which it said that rapid industrial growth has seriously depleted proven reserves of nearly all key minerals, materials which in the words of Interior Secretary Rogers C.B. Morton are "the physical source of most of the necessities, conveniences and comforts of life in the U.S. today." Known lead reserves, for example, are projected to last 27 years, copper 38.

The Federation of American Scientists reported in its February, 1973, Newsletter, a special issue on energy policy, that "without imports of gas, or ways of making synthetic natural gas, the U.S. could run out of all recoverable domestic natural gas.....in anywhere from 15 to 30 years.....Without imports or synthetic oils, American petroleum might last, as with gas, only about 15 to 30 years."

## FINDINGS OF THE COMMISSION ON POPULATION GROWTH AND THE AMERICAN FUTURE

"Each one of the impacts of population growth -- on the economy, resources, the environment, government, or society at large -- indicates the desirability, in the short run, for a slower rate of growth. And, when we consider these together, contemplate the ever-increasing problems involved in the long run, and recognize the long lead time required to arrest growth, we must conclude that continued population growth -- beyond that to which we are already committed by the legacy of the baby boom -- is definitely not in the interest of promoting quality of life in the nation."

"Neither the health of our economy nor the welfare of individual businesses depend on continued population growth. In fact, the average person will be markedly better off in terms of traditional economic values if population growth slows down than if it resumes the pace of growth experienced in the recent past."

"Will a slower rate of population growth hurt specific industries, particularly those which cater to young people? Does it threaten jobs?"

"While it is certainly true that there would be a faster increase in the sales of certain products, for example baby foods and milk, under conditions of higher population growth, it is also true that other products and services, for example convenience foods and airline travel, would be relatively favored by the faster rise in per capita income associated with slower population growth rates."

"Our research indicates that in the year 2000, per capita income may be as much as 15 percent higher under the 2-child than under the 3-child population growth rate... (due to) relatively more workers and earners, and relatively fewer mouths to feed."

(CONT.)

"More important, it does not appear, for several reasons, that a lower population growth rate will cause serious problems for any industry or its employees.

"First, regardless of the rate of population growth, total income, and hence demand, will rise.

"Second, slower population growth will actually cause total as well as per capita income to be higher over the next 10 to 15 years than would a more rapid population growth rate. In other words, during the next 10 to 15 years total GNP in the 2-child projection would probably be slightly higher than in the 3-child case.

"Third, it is important to note that under the 2-child family projection, there is no year in which there would be fewer births than there were in 1971. In other words, a gradual approach to population stabilization would not reduce demand from current levels for any industry we studied.....

"Beyond the next 10 to 15 years, the adjustments business must make to changes in consumer tastes and technological developments should far exceed the problems of adjusting to a lower population growth rate."

"Is there reason to fear that the ills typical of areas of population decline today would become more serious or widespread if national population growth rates declined? We conclude that there is not; such fears are based on a mistaken belief that population decline causes economic decline. In reality, the chain of causation in distressed areas runs from (1) the decline of regional competitive capability to (2) unemployment to (3) net outmigration to (4) population loss...areas of relatively high unemployment will tend to be areas of relative population loss; but the relative population loss will be the consequence and not the cause of local unemployment."

"With regard to both resources and the environment, the evidence we have assembled shows that slower growth would conserve energy and mineral resources and would be a significant aid in averting problems in areas of water supply, agricultural land supply, outdoor recreation resources, and environmental pollution.

"Slower population growth can contribute to the nation's ability to solve its problems in these areas by providing an opportunity to devote resources to the quality of life rather than its quantity, and by "buying time" -- that is, slowing the pace at which problems accumulate so as to provide opportunity for the development of orderly and democratic solutions.

MARCH 1972

The counter-argument is more optimistic. Under Secretary of Interior, John Whitaker, has been quoted as saying that "the Mesabi Range ran out of iron ore 50 years ago and then taconite was discovered. I have no great faith in estimated reserves.... As a nation, we have technology that man has never dreamed of before. We'll put it to work."

In any event, given today's uncertainties, it is prudent to take the safest course. That course is to conserve our resources and do whatever is reasonable to slow population growth, both nationally and locally, until we have a better idea of the capacity of our resources and the implications of continuing as we have been. The alternative eventually might turn out to be drastic changes in our life styles with little freedom to choose. The range of choices open to us is wider today than it will be in the future.

#### ENVIRONMENTAL CAPACITY OF THE CRAG REGION

A pioneering step in determining environmental capacity has been taken by the Urban and Rural Lands Committee of the Pacific Northwest River Basins Commission. That step is documented in the Committee's report, Ecology and the Economy (Discussion Draft, March, 1972).

The Committee started with the concern that "the long range hazard that some can clearly foresee, and others do not yet perceive, is that a nation's efforts to satisfy the basic needs for an ever increasing population can foreclose the opportunities for eventually satisfying the self-fulfillment needs essential for an optimum quality of life." The



direction taken by the Committee was to formulate "the conceptual beginning of a process of review, testing, research, development of detailed supporting data, and wide public discussion", aimed at applying the "carrying capacity" or "sustained yield" concept (an established method in the management of renewable resources such as forests, watersheds, and wildlife) to the entire environment of the Pacific Northwest Region.

The Committee's initial application of the carrying capacity approach resulted in a population increase from 6.3 million in 1970 to a ceiling of 9.0 million, if natural resources (i.e., forests, minerals, power sources, etc.) are to be managed on a fully sustained yield basis and pollution held to acceptable minimums. Looking at the capacity of natural resources "to provide the open space, scenic attractiveness, wildlife, outdoor recreation opportunities, and other less tangible items that ordinarily are not valued at the market place", the Committee arrived at a maximum Pacific Northwest population of 11.0 million. These figures compare with the River Basins Commission's "business as usual projection" of 12.7 million by year 2020.

Stated differently, the initial findings of the Urban and Rural Lands Committee are that given today's level of scientific knowledge, something less than a doubling of population will bring the five-state Pacific Northwest region to a population level beyond which quality of life will begin to deteriorate, due to shortages of some tangible resources, to pollution, and to overuse of outdoor recreation resources.

The CRAG region accounts for 16.5% of the population and 1.6% of the area of the Pacific Northwest region. Therefore, the quality of life in the CRAG region is inextricably related to availability of resources in the Pacific Northwest as a whole.

The Ecology and the Economy report has triggered considerable debate revolving around questions of methodology and data reliability. The Urban and Rural Lands Committee itself called for a series of future steps to improve the methodology, to study individual subregions in detail, and to define goals more precisely. The Committee's primary contribution is to provide a framework or "concept for balancing long-range goals", within which environmental capacity can be determined.

After all is said and done, the question comes down to establishing consensus on what we most value and on choice of life style. For example, there is no objective or scientific answer as to how much of our "hard" resources we should conserve for tomorrow rather than enjoy today; or whether the cultural events made increasingly possible by a growing population concentration -- such as the opera or professional sports -- are more important than fishing or hunting or the experience of wilderness.

#### ENVIRONMENTAL IMPACT OF TWO MILLION PEOPLE

One way to get at these subjective choices is to play a "what if" game. The Urban and Rural Lands Committee suggested that anything beyond a doubling of the Northwest population would have an unacceptable negative impact on quality of life. What if population in the CRAG region doubles? What would it be like?

We can look at the impact of two million people from two standpoints. First, what would be the overall impact on the region, regardless of what the pattern of settlement was like? Second, what might the settlement pattern itself look like and what alternatives would there be? The first question

## IMPACT OF TWO MILLION PEOPLE ON AIR QUALITY

The quality of our air is determined by: (1) pollutant emission levels, types and duration; and (2) meteorologic and topographic conditions. Pollutant emissions are directly related to population size.

The Willamette Valley is a natural basin with a tendency to trap air pollutants. "Western Oregon has the highest potential, on a meteorological basis, for an air pollution problem of any area in the continental United States. The capacity of the atmosphere in this area to accept and disperse or assimilate air pollutants is extremely limited. Low wind movement and frequent inversions are principal factors in this restricted natural ventilation." (Advisory Committee on Environmental Science and Technology, Environment Quality in Oregon, 1971)

Generally, in 1980 and 1990 emission levels will be much lower than at present. This is due to control measures currently authorized to be implemented in the 1970's that will reduce emissions from automobiles and eliminate field burning and wigwam burners..... While existing control measures will result in improved air quality, GROWTH IN THE VALLEY WILL NEGATE MOST OF THE IMPROVEMENT BY 2000.

Even though Basin totals may show improvement under existing control measures, problems may occur in specific areas from concentration of emission sources...

To achieve continued improvement, even stricter controls will be necessary in the future. These controls potentially have significant impacts on modes of transportation and types of industry that will prevail in the Valley.

--Project "Foresight" First Phase  
December 9, 1971.

is tackled below. The second question is addressed in Part III and following parts of this report. The two million design population may be found to be too high, too low, or optimum, depending on how you view the results.

#### OVERALL IMPACT OF TWO MILLION PEOPLE ON THE REGIONAL ENVIRONMENT

It can be assumed that two million people in the CRAG region would use two times the natural resources consumed by today's population, if you make no allowances for such factors as changing technology, increased recycling, changing income levels, standards of living, proportions of young and elderly, or inter-regional imports and exports. If we boost our economy by stepping up the export of lumber and wood products, for example, the effect will be to push us closer to the maximum yield which our forests can produce when managed on a sustained yield basis, or else to deplete the resource. If the spendable income available to the average family continues to rise (as shown on page 28), the demand for products will be multiplied, again increasing the pressure on natural resources.

The Urban and Rural Lands Committee of the Pacific Northwest River Basins Commission published preliminary estimates of the "sustained production potential" of the northwest's commercial forest land, agricultural land, commercial fisheries, recreation and tourism, industry based on location, and mining and minerals in its Ecology and the Economy report. The estimated sustained production potential of these resources turned out to exceed actual production in 1965 by an overall factor of four.

The Committee converted sustained production potentials into alternative population levels based on alternative assumptions about degree of pollution control and per capita share in



the gross regional product. It found that 9 million people could be accommodated at the maximum level of pollution control likely to be attainable, and at an "optimum" income level reaching 2.7 times the 1965 level (in 1965 dollars). This would be less than double the 1970 population of 6.3 million or the 1965 figure of 5.8 million used in the analysis. Under the concepts explored by the Committee, a higher population could be supported, and an optimum balance maintained with natural resources, only with a proportional decrease in per capita income.

A determination of whether a doubling of population in the CRAG region to a total of two million would result in depletion or sustained yield of most "hard" or tangible resources would involve our interdependencies with the Pacific Northwest, the nation and the rest of the world. Such a determination is beyond the scope of this report. It also inevitably would have controversial aspects. Suffice it to say, that if we take as a guide for the CRAG region the model for the Northwest provided by the Urban and Rural Lands Committee, we may be approaching or have reached the sustained production potential of our tangible resources with a doubling of population.

Determining the overall impact of two million people on some of the less tangible environmental values presents a somewhat different kind of problem. Information is available which is suggestive of the impact on some of our most highly prized natural values, the intangible values in ocean beaches, lakes, rivers, ski areas, campgrounds, hunting and fishing, mountain trails, wilderness, wildlife, scenic vistas and all the rest. But we label these values "intangible" precisely because their importance is subjective. What is perceived as a serious threat by some groups may be dismissed as trivial by others with differing values and life styles. Each reader, then, will have to judge the data for himself.

One foremost consideration is the fact that one million people in five or twenty-five years unquestionably would have a much greater impact on the natural environment than one million people today. The graph on page 28 is evidence to this point. There is further evidence in a 1970 Survey of Outdoor Recreation Activities published by the U.S. Bureau of Outdoor Recreation (Feb. 1972). The survey data re-confirm the correlations which have been found between participation in outdoor recreation activities and education level attained and household income. Higher education and income go with higher rates of participation, and a continuing increase is projected in both factors.

The data indicate that there would be a 32% increase in outdoor recreation activities, given a doubling of income. This is without taking any of the other factors into account, and with no increase whatsoever in population. A 100% increase in both population and income would result in a 164% increase in utilization of outdoor recreation resources. Use pressures are magnified again when expected increased leisure time (more three-day weekends, longer vacations) are added into the equation. In short, outdoor recreation activity is increasing at a considerably faster rate than population.

Spending for leisure has increased from \$58.3 billion in 1965 to an estimated \$105 billion in 1972 (April 17, 1972, Economic Unit of "U.S. News & World Report"). The recreation vehicle industry, skiing, aquatic activities such as water skiing, golfing, the turn to vacation homes, and domestic pleasure travel are booming.

Visits to national parks rose from 72.2 million in 1960 to 160 million in 1970. Attendance at state parks across the country increased 36.5% from 1962 to 1967, and another 23.8%

# The Three-Day American Pleasure Trip

Batten down the hatches.  
The four-day work week, civilized as it is,  
will unleash a new fury on the land

## LEISURE BOOM: BIGGEST EVER AND STILL GROWING

More free time, more spare cash—it's a combination that has set off an explosion of recreational spending in the U. S. An analysis shows its surprising scope.

A "LEISURE BOOM" that has grown to phenomenal proportions will push 105 billion dollars into the U. S. economy this year. The money Americans are now spending on spare-time activities exceeds national-defense costs. It is more than the outlay for construction of new homes. It surpasses the total of corporate profits. It is far larger than the aggregate income of U. S. farmers. It tops the value of this country's exports. And estimates are it will be more than double by the '70s.

A study by the U. S. Bureau of Economic Analysis

In Canada, the Khan e de-  
ver, s

than 700 American companies now give employees three out of every seven days to themselves, and at least 1,000 companies are contemplating such a shift. The nation's largest employer, the federal government, will run a four-day work week experiment for Social Security workers.

gardens of leisurely pleasure—often at the terrible expense of what little unspoiled land remains.

The crushing weight of the coming problems caused by expanded leisure can be understood by examining our recent behavior with time off. Visits to national parks, for example, rose from 72.2 million in 1960 to 160 million in 1970.

ing balls to bicycles, from color-television sets to camping vehicles, from cameras to cabin cruisers. Dollar totals in sales of leisure equipment have increased about 52 per cent for the past five years. The sharply increasing

by 1970. Tents and trailer camping jumped 70% and 44.6% during these same two periods. (Robin W. Doughty, "The Three-Day American Pleasure Trip", Natural History, July 1972.)

Striking increases have been reported in outdoor recreation among workers switched to the four-day work week. Doughty projected some of the environmental consequences: "To today's water-recreation minded worker seeking salvation at the lake, the four-day work week will mean the three-day weekend; but to the lake it will mean the four-day weekend ... A recreational resource that formerly had five days in which to rejuvenate will now have only three -- Tuesday, Wednesday, and Thursday."

Visitors to parks and campgrounds at lakes within the Portland District of the Army Corps of Engineers increased ten percent in 1971 over the preceeding year and more than tripled in the decade since 1962.

Reservations are now necessary for camp sites in some state parks. Permits were required for the first time in 1972 for day hikes in the Mt. Hood Wilderness Area and other Federally designated Wilderness Areas. Increasing population necessitates increasing regulation of activities.

Scenic waterways in the Willamette Valley and elsewhere in Oregon and Washington -- the Columbia River Gorge, the Sandy River, the Willamette River, the Clackamas River -- are experiencing increasing pressures for development, pressures for sites for first and second homes, for development of waterfront industrial sites, for gravel mining ...

There is a conflict between the development of a tramway to the rim of the Columbia Gorge at Cascade Locks to promote



tourism and the local economy, and the preservation of the fragile ecology of the as yet unspoiled plateau which would become easily accessible at the top. There is a conflict between needed expansion of ski facilities and maintenance of the fragile ecology around Mt. Hood Meadows.

What happens if we allow existing trends to increase the population of the Mt. Hood community from today's 5,300 people (2600 permanent and 2700 seasonal residents) to 170,000, which is a possibility foreseen in the Preliminary Plan, Mt. Hood Community (1972), given continuing indiscriminate development? What happens if there is an increase of similar magnitude in the number of annual visitors, now estimated at 900,000 annually?

The greater the population in the CRAG region the more natural areas which will have to be opened up for outdoor recreation facilities and use, the greater the impact on the natural environment, and the farther one will have to travel to find untouched uncrowded areas. It is not surprising to find that participation in outdoor recreation activities is lowest on the part of residents of cities of 500,000 or more, and highest on the part of residents of small cities and suburbs, both in terms of percentage of the population participating and number of activity days for the average participant (from the Bureau of Outdoor Recreation Survey cited above). This is an indicator of quality of life in big cities, even though the compensating alternatives to outdoor recreation which they provide are recognized.

#### MEASURES TO MINIMIZE THE ENVIRONMENTAL IMPACT OF TWO MILLION PEOPLE

Impact of population on the natural environment can be

minimized and quality of life maintained by substituting other types of outdoor recreation activities for those which are spoiled by overcrowding. For example, there is a great potential for the enhancement of outdoor resources within areas committed to urbanization -- rivers, streams, regional parks and unique areas -- which could relieve some of the pressure on backcountry and wilderness areas. As another example, Robin Doughty proposes in "The Three-Day American Pleasure Trip" that "high-intensity" recreation centers at the rims of metropolitan areas might siphon off pressure from vital natural resources, on the theory that "today's mobs of motorized outdoorsmen are drawn to the wilderness primarily to use their machinery, not to touch nature". Disneyland and Astroworld in Houston were cited by Doughty as pointing the way. "There would be water sports, shooting, mechanized camping, and special facilities for MRV's (motorized recreation vehicles). Hotels and chalets with impressive views, movies, theaters, restaurants, arcades of games and exhibits, children's activities, and other diversions would complete the pleasure dome."

In summary, the prospect of increasing population and recreation pressures on outdoor recreation resources carries the potential of substantial deterioration of these resources and of the natural environmental values we now enjoy. The fisherman might go the way of the buffalo hunter. Substitute activities need to be developed, but they should not be depended on (except as a last resort) as long as our aim is to maintain and enhance today's quality of life.

We now turn in Part III of this report which follows, from the question of the overall impact of two million people on the regional environment, to the question: What might the settlement pattern itself look like with two million people? The

desirability of the alternative answers to this question will round out our perspective on whether anything beyond a doubling of population will have an unacceptable negative impact on the environment and on quality of life.

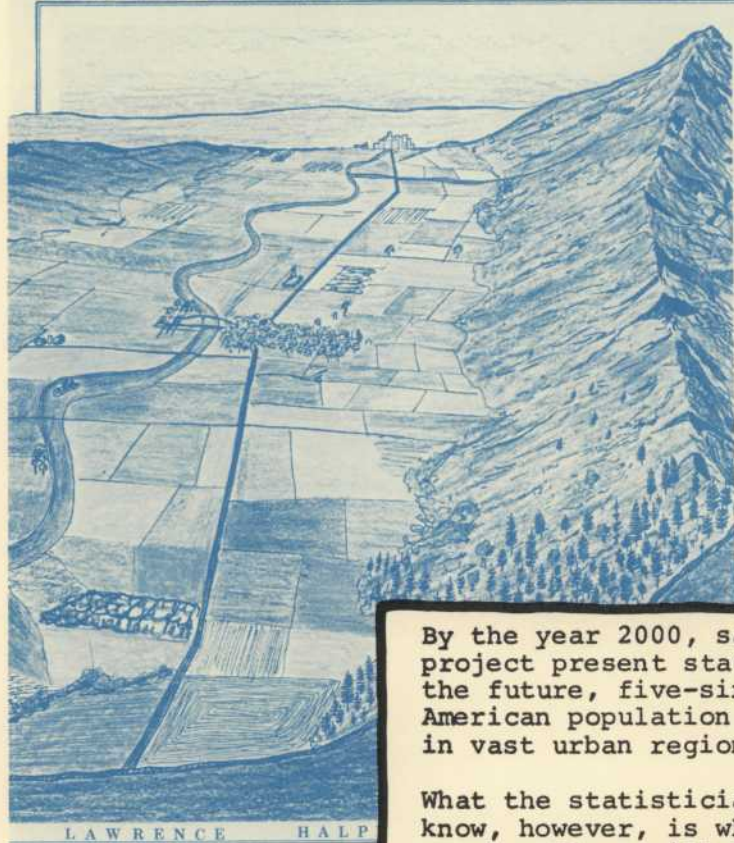




PART III

REGIONAL LAND USE  
CONCEPTS

## THE WILLAMETTE VALLEY CHOICES FOR THE FUTURE



When we let, encourage, and subsidize our cities to sprawl out all over the surrounding countryside, we release much of the pressure that would maintain central rents and land values, and we greatly defer the time when it is economical for central landowners to clear and renew their lands. Cheap land (outlying) means low renewal frequency of (central) sites.

-- Mason Gaffney  
Univ. of Missouri

By the year 2000, say those who project present statistics into the future, five-sixths of the American population will be housed in vast urban regions.

What the statisticians do not yet know, however, is whether these megalopolises will be huge sprawls the length of Atlantic, Pacific, and Gulf Coasts, around the Great Lakes, blanketing Florida, and radiating out from a few other centers.

An alternative would be distinctive communities set in open farmland and countryside, the nearby mountains and seashores protected and retaining their distinctiveness and integrity. Abundant parks and accessible waterfronts along unpolluted waterways would grace the inner cities.

... The alternative will not be available without basic reforms in attitudes and institutions controlling the use of land.

-- Robert Cahn, Environmental  
Editor, Christian Science  
Monitor

## LAND USE AND ENVIRONMENTAL PROBLEMS AND ISSUES

Part II of this report discussed the impact on the CRAG region as a whole of a doubling of population, the impact of two million people on some of the environmental values which today are most highly prized for the quality of life they provide regionwide. The next question is what might the pattern of settlement look like with two million people? What choices do we have in the future use of our land? What would happen to quality of life under each of the choices?

One choice for the future is "business as usual". This alternative means the continued outward expansion of urban development in every direction, allowing the real estate market to continue to operate as it does now. Change always involves dislocations and sometimes painful readjustments, so this would be the easiest alternative.

Public sentiment increasingly seems to indicate that the urban sprawl alternative is unacceptable. Urban sprawl or leap-frog development is the regional land use and environmental problem underlying a myriad of problems of increasing concern to city dwellers and rural people alike. It is of direct concern to their elected representatives whose immediate decisions either intensify or ameliorate the problem -- in ways which no one could necessarily foresee from a purely local standpoint. Urban sprawl is a problem so commonly recognized as to sound trite, yet what must be done to create a different kind of settlement pattern has yet to be faced-up to.

Urban sprawl is the product of our shared value system, our inherited social, economic, legal and governmental way of doing things. It is the product of the frontier attitudes of exploitation of resources for growth and gross national product

which have made this a great country. It is the result of treating the land market like the stock market, of vesting development rights in the property owner, even where his opportunities are community-created.

The signs now are that the frontier has changed. Where there used to be abundance we are faced with the possibility of scarcity. Where formerly we could exploit our land for widespread benefit, we now are warned about geometrically increasing rates of usage and the prudence of husbanding our resources. The signs now are that the costs of urban sprawl are too high.

The regional land use and environmental issue is whether we can evolve a new common value system; whether our social, economic, legal and governmental way of doing things will be modified to meet the challenge of the new frontier. We are finding ways to reclaim the public right to clean air and unpolluted water. Can we find equitable ways to vest pertinent land development rights in the community instead of in the private property owner?

Change will create hardships on everyone who depends on the system as it now operates. Planned change will be opposed by those who have vested interests in things as they are, unless we can fully understand those interests and find practical solutions, including just compensation for any property rights it might be necessary for the community to acquire.

What process can we work out to assure that all interests and needs are heard and that everyone has a chance to help work out answers? How can we avoid the hazard of bogging down in misunderstanding, endless debate and confusion?



The publication of this report is a key step in a process intended to stimulate participation by focusing on the elements of a solution to the urban sprawl problem, however tentative and incomplete. A brief review of some of the specific regional problems inherent in urban sprawl will lay the groundwork.

#### WHAT'S WRONG WITH URBAN SPRAWL?

Urban sprawl means many different things to different people. To some it means unsightly development, overhead wiring, row on row of identical "cracker box" houses, or housewife turned chauffeur. To others it means an opportunity to invest in a piece of land to be sold at a profit for retirement income. It means finding a home site which is far enough out that the price won't be too high. It means being able to live, for a while, where neighbors are not elbow to elbow, and where, for a while, you don't have to pay the high costs of all those city services. Urban sprawl means a wide variety of choice for an affluent society. So why not? We can cite three basic reasons "why not" from the regional standpoint:

1. Urban Sprawl is wasteful of land. A small amount of scattered development effectively commits a relatively large area to an urban future. Bypassed farmland becomes increasingly difficult if not impossible to farm efficiently as tracts become cut up and as the new non-farm residents object to farm noises, dust, odor, aerial spraying, etc. Productive agricultural soils are irretrievably lost, unnecessarily. We end up with a vast gray area which is neither urban nor rural and has the disadvantages of both. It is necessary to travel farther and farther to find refuge from the urban pace.

It is not necessary that it be this way. For example, if

we were to take advantage of all of the 267 square miles already committed to urbanization by virtue of scattered development (the Urbanized Area where population densities exceed 1000 people per square mile), a population increase of almost 700,000 people could be accommodated (compared to an actual increase of 194,000 in the total CRAG area between 1960 and 1970). This increase could be achieved without exceeding the average gross density of the City of Portland in 1960, which was 5,630 per square mile. By contrast, at an urban sprawl density of 2500 people per square mile, which was the density of the Urbanized Area outside of Portland in 1970, a population increase of 700,000 people would require more than a doubling of the size of the Urbanized Area.

2. Urban sprawl means a "throw-away inner city". Urban sprawl wastes our investment in urban resources... streets, buildings, housing, utilities, public facilities, convenient and central locations. It means we turn our back on age and obsolescence in our "urban plant" and start all over again somewhere else, instead of capitalizing on values still remaining, especially the values of location.

There has been an exodus of nearly 35,000 residents from 60 census tracts in the City of Portland since 1950. Decreases have also been experienced by several tracts in Vancouver, while the metropolitan area as a whole has been increasing by 302,000 or 43 percent.

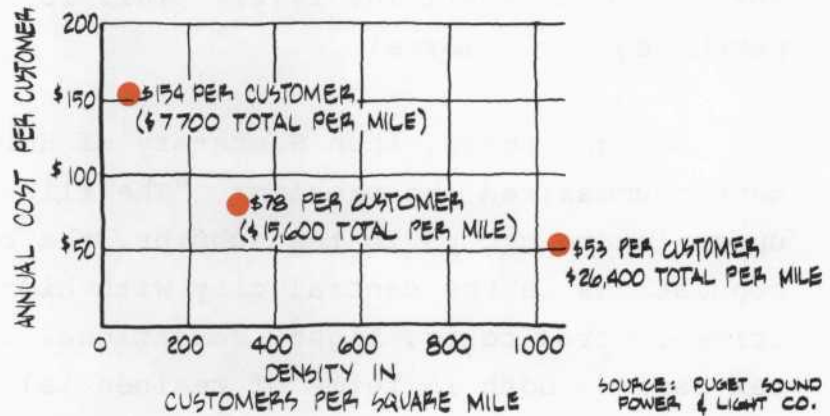
Portland and Vancouver are not atypical. It was recently reported that "spreading sections of older cities are becoming empty, with people leaving businesses, too. Billions have been poured into schemes to reverse the flow, but nothing seems to work. Now experts wonder whether anything can keep decay from invading the suburbs....Some other experts go so far as to

suggest that the best thing to do -- perhaps the only realistic approach at this point -- is to let the inner cities waste away.... Later, it is argued -- perhaps in a generation or two, after the ills of the cities have spread to the suburbs -- the time may be ripe to build 'new towns in town'" (U.S. News & World Report, April 10, 1972). This is the throw-away disposable psychology writ large!

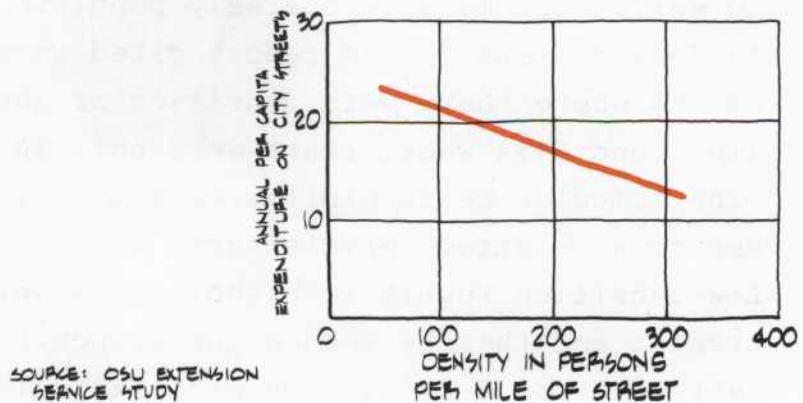
George Romney, then Secretary of Housing and Urban Development, summarized the problem: "The flight of the middle and upper-income groups to the suburbs, the concentration of problem populations in the central city with higher welfare costs, higher crime-control costs, higher educational costs, and a decreasing tax base -- both in terms of residential property and in terms of manufacturing and commercial property -- results in a growing fiscal crisis for the central city." (quoted in U.S. News & World Report, April 10, 1972.)

3. Urban Sprawl means high costs, high taxes. A recent report for the Puget Sound Power and Light Company discovered that "with the exception of large power customers receiving service at primary voltages, it is significantly more costly to serve customers in sparsely populated areas than customers in denser areas." The report cited an annual cost per customer of \$53 where there were densities of 100 customers per mile of line, and \$154 where there were only 10 customers per mile. Other studies reach similar conclusions regarding municipal services -- street maintenance, water systems, for example. Low densities result in higher costs per trip using public transit and thereby reduce the economic feasibility of transit systems. Low densities necessitate reliance on the private automobile, which has the further effect of heavy air pollution in central locations.

IN DENSELY SETTLED AREAS EXPENDITURE PER MILE OF ELECTRICAL LINE IS HIGHER BUT EXPENDITURE PER CUSTOMER IS LOWER



IN DENSELY SETTLED AREAS EXPENDITURE PER MILE OF STREET IS HIGHER BUT EXPENDITURE PER PERSON IS LOWER



WHAT IF CHARGES WERE RELATED TO RELATIVE COSTS OF SERVICE?

Urban sprawl means over-taxing of some public facilities and excess capacity in others. The Evergreen School District east of Vancouver, for example, is experiencing severe overcrowding in its schools combined with a financial crisis (see page 24 for a description of the problem). Or, taking the example of sewer systems, while excess capacity is being created in some areas development has been sprawling into other areas lacking sewers.

Clackamas County Service District No. 1 was formed to solve water pollution problems in an eleven square mile area between Milwaukie and Gladstone. The total estimated cost of the sewerage project is \$20,155,000, to be financed from Federal and State grants, sale of general obligation bonds, and direct property assessments. The total direct assessment estimated for a typical 10,000 square foot lot is \$1205. In addition there will be hookup fees, monthly service charges, and a property tax to repay the bond issue.

The treatment plant initially will serve approximately 40,000 people. It is designed to serve a population of 100,000. If there were more homes and thus more assessed valuation in the district to share costs, the amount of the property tax on each homeowner to repay the bond issue would be lessened. Conversely, the cost of the plant would be somewhat lower if the excess capacity were not provided. So the tax which actually must be levied against each home reflects the costs of this excess capacity. There is also the matter of the direct assessment against each lot which becomes, in effect, an added cost of the property. Higher costs could have the effect of discouraging builders and shifting development pressures elsewhere, where at least initial costs are lower. To the extent that lower-cost unsewered options are open to builders anywhere in the region, available sewerage will be underused and urban sprawl perpetuated.



## SOME OTHER COSTS OF URBAN SPRAWL

### CONSTRUCTION COSTS

The Willamette Valley is running out of sand and gravel. According to the Division of State Lands, if the situation continues unabated, all the known sand and gravel deposits may be exhausted by the year 2000.

The resource is being depleted partly by mining and partly by conflicting needs to preserve rivers and waterfront property for esthetic, ecological and recreational purposes. The Clackamas River and Ross Island in the heart of Portland are cases in point.

Sand and gravel resources are also being depleted by subdivisions covering them over and preventing their extraction, i.e. by urban sprawl.

Sand and gravel can be obtained outside the Willamette Valley, but transportation costs will push up the price. In this way urban sprawl increases costs of new homes, streets, schools, churches ...

## FOOD COSTS

Urban sprawl on prime agricultural land will increase farm food prices, according to the Commission on Population Growth and the American Future (March 1972):

At a time when the federal government pays farmers to hold land out of production, it seems absurd to be looking forward to a scarcity of good agricultural land and rising food prices. Yet these are the prospects indicated by our analysis of what rapid U.S. population growth implies.

This picture emerges when we combine the requirements for feeding a rapidly growing population with a sound environmental policy which restricts the use of pesticides and chemical fertilizers. There are a number of reasons for believing that the nation will wish to limit application of these chemicals. But to do so will regard improvements in per acre productivity. This means that, to produce a given quantity of food, more acres must be brought into production. It is likely that, with such restrictions, all the high quality land will have been returned to production by the year 2000. Consequently, the task of feeding the more rapidly growing population would force us to bring an additional 50 million acres of relatively low-quality land into production.

This is an expensive undertaking heavy investment in equipment, fertilizer, and manpower, for which farmers must be compensated. The result is that 50 years from now the population resulting from the 3-child average family could find itself having to pay farm food prices some 40 to 50 percent higher than they would be otherwise.

There are numerous other examples. A sewage problem exists in the relatively sparsely settled Damascus area. Better sewage treatment is needed at Government Camp. Wells are contaminated or running dry in the Gaston Area. Rural Hockinson needed a new water line to serve a school, opening other property to potential development.

The solution to these kinds of current problems either results in temporarily increased attractiveness for additional population growth, and compounded problems later, (as in the case of Hockinson), or the solution itself (such as the Unified Sewerage Agency of Washington County) depends on new growth to help pay the bill. Either way, when the effort to solve these problems in low density urban sprawl areas is undertaken there is no way that economies of scale and economies of density can be realized. Costs inevitably are high. Different areas compete for new growth to help share the load. This competition runs against planning for overall efficiency, and further urban sprawl is perpetuated.

From a regional standpoint, looking at the example of sewerage, it is estimated that about 600,000 people in the CRAC region are served by sanitary sewers. Making an allowance for industrial wastes, an estimated 1 million persons could be served by these existing systems if committed expansions to be ready by 1975 are included. Beyond 1975, plans have been drawn for sewerage to serve up to 1.9 million people. Growth occurring within service areas already committed will help to spread the costs and conserve resources -- urban and rural. Low density development scattered elsewhere may be a luxury we can no longer afford.

## REGIONAL GOALS

On May 18, 1973, the CRAG Executive Board formally adopted two broad goals which are related directly to the land use and environmental problems and issues described above. The most relevant portions of the statement are as follows:

### ● REGIONAL SETTLEMENT GOAL

Achieve a distribution of urban and rural settlement, and uninhabited areas, consistent with the region's physical setting, resources and land capacity.

... tailor all decisions relating to growth and development to the aim of keeping our options open ... Seek to conserve all non-renewable resources, while accommodating the growth that actually does occur in such a way that all public services can be provided efficiently and equitably.....

### ● URBAN - RURAL DIFFERENTIATION GOAL

Achieve a pronounced and recognizable distinction between urban and rural settlement.

... to insure that urban growth and development occurs in those places designated for urban settlement by the regional comprehensive plan, and to preserve all other areas as rural and/or relatively uninhabited.....

The complete text of the adopted statement of goals and policies can be found in Planning in the CRAG Region: An Appraisal and New Direction, beginning on page 151.

## HOW MUCH URBAN LAND IS NEEDED TO MEET REGIONAL GOALS?

The CRAG region contains a total of 4400 square miles. How much of this land would be needed for urban use, given the adopted goals and policies, and given a regional design population of two million people (as discussed in Part II)? We can answer this question by: (1) looking at the amount of urban space used by today's population; (2) reviewing existing density levels and patterns both urban and rural; (3) determining whether it would be desirable to promote lower or higher overall densities, and then adopting appropriate standards; (4) calculating the population holding capacity of all of the urban space already used or committed in light of the density standards adopted; and (5) calculating the additional urban space needed in order to accommodate the remainder of the design population.

Central and outlying areas of the CRAG region which are already committed to urban use by virtue of municipal incorporation or population densities already reached are shown on the map on page 60. The accompanying table gives population, square miles and gross densities for these areas as of 1970.

Rural population -- i.e. all population living outside the central urbanized area and not in any incorporated city -- accounts for nearly 16% of the total population in the CRAG area. Rural population densities vary widely and include small scattered areas developed at urban density levels. The overall average rural density is 76 people per square mile.

The CRAG Area Development Committee interpreted the adopted goal of achieving a pronounced and recognizable distinction between urban and rural settlement to mean that densities in designated rural areas should remain as low as possible. On this basis, the Committee accepted the proposition that while



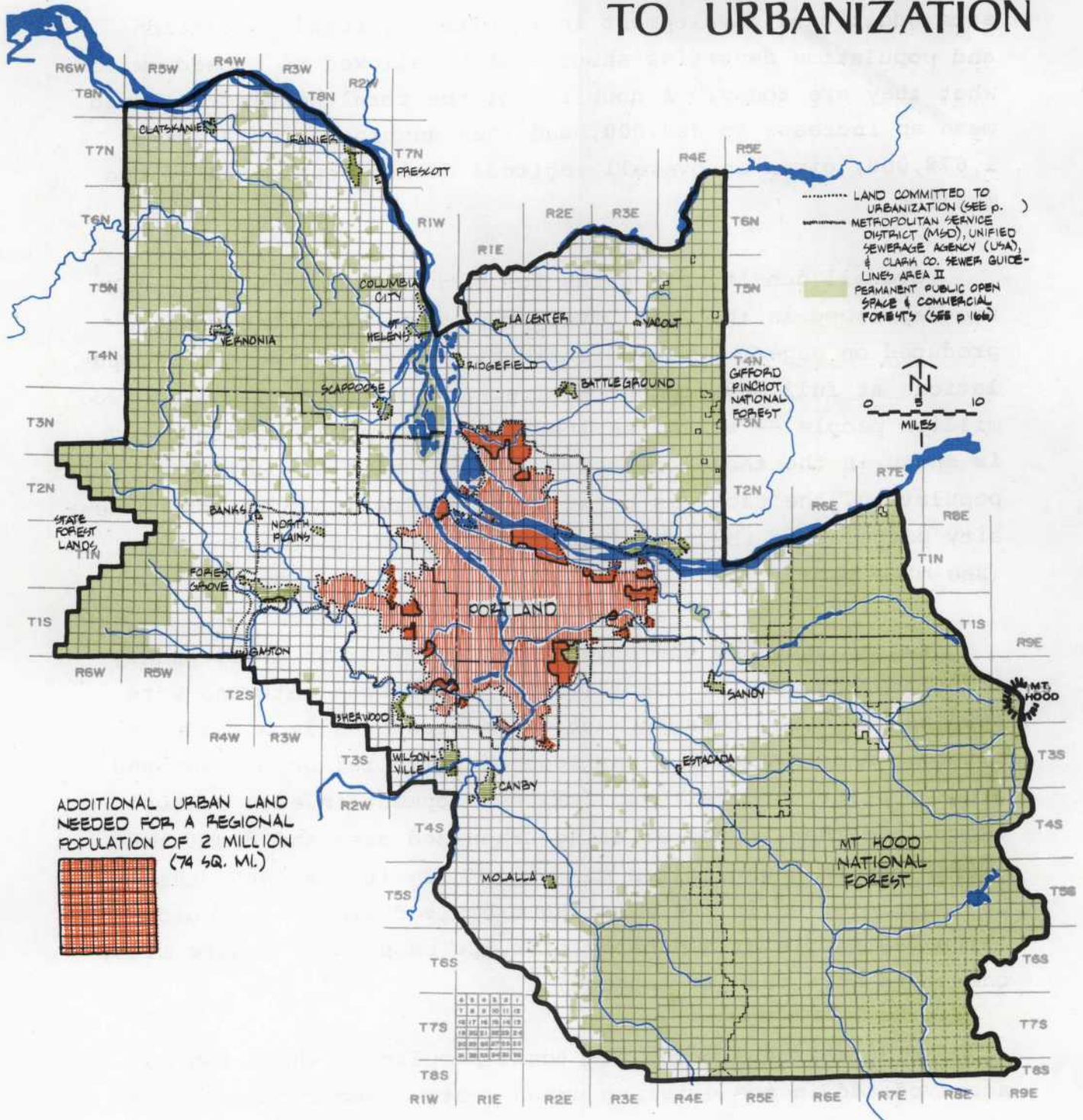
some additional development is inevitable, rural population and population densities should not be allowed to exceed twice what they are today. A doubling of the rural population would mean an increase to 322,000, and then an urban population of 1,678,000, given an overall regional design population of two million.

Overall density standards for both rural and urban areas are described in the Area Development Committee statement reproduced on page 63 . The distribution of rural and urban populations at full development -- i.e. at the design level of two million people -- which results from applying these standards is shown in the table on page 61 . Along with a doubling of rural population, the table is based on an evaluation of existing density patterns in the urbanized area and committed extensions (see map, page 66 ).

Vacant land and the potential for new urban development, redevelopment, or the stabilization of present patterns were studied for every census tract where urban use is already committed. A determination was made of potential population and gross population density at full development in each census tract, and then in the existing urbanized area and committed extensions as a whole (see map page 67 ). It was found that the 267 square miles in the existing urbanized area could hold 1,100,000 people at a density of 4,100 people per square mile, one-third more than at present.







Using this approach, the total population which can be accommodated in the existing urban central and urban outlying areas, and their extensions already committed, is around 1,419,000. This leaves about 259,000 people to make up the urban total of 1,678,000. This 259,000 people is to be accommodated in new as yet uncommitted urban areas. At the

# LAND COMMITTED TO URBANIZATION





# PROPOSED DENSITY STANDARDS AND POPULATION DISTRIBUTION

MAP COLOR	AREA	1970			AT FULL DEVELOPMENT		
		POPULATION	SQ MILES	GROSS DENSITY	POPULATION	SQ MILES	GROSS DENSITY
	URBAN CENTRAL						
	EXISTING URBANIZED AREA <sup>(a)</sup>	825,000	267	3,100	1,100,000	267	4,100
	EXTENSIONS OF URBANIZED AREA ALREADY COMMITTED <sup>(b)</sup>	—	—	—	168,000	48	3,500
	URBAN OUTLYING						
	OUTLYING INCORPORATED CITIES	50,000	36	1,400	126,000	36	3,500
	EXTENSIONS OF CITIES ALREADY COMMITTED <sup>(c)</sup>	—	—	—	25,000	7	3,500
	ADDITIONAL URBAN <sup>(d)</sup>	—	—	—	259,000	74	3,500
	URBAN TOTAL	875,000	303	2,900	1,678,000	432	3,900
	RURAL	163,000	2,142	76	322,000	2,013	160
	UNINHABITED <sup>(e)</sup>	—	1,964	—	—	1,964	—
	CRAIG AREA TOTAL	1,038,000	4,409	235	2,000,000	4,409	450

(a) DEFINED AS THE CITY OF PORTLAND PLUS ALL CONTIGUOUS BLOCKS WITH A GROSS POPULATION DENSITY OF 1000 PEOPLE PER SQUARE MILE OR GREATER.

(b) INCLUDES:

1. AREAS WHERE SEWERS EXIST OR ARE UNDER CONSTRUCTION; OR WHERE SEWER PROJECTS ARE FUNDED AS OF 1973.
2. ANNEXATIONS TO INCORPORATED CITIES SINCE 1970.
3. RIVERGATE INDUSTRIAL AREA
4. ENCLAVES CREATED BY THE ABOVE

(c) INCLUDES:

1. AREAS WHERE SEWERS EXIST OR ARE UNDER CONSTRUCTION; OR WHERE SEWER PROJECTS ARE FUNDED AS OF 1973.
2. ANNEXATIONS TO INCORPORATED CITIES SINCE 1970.
3. LADY ISLAND

(d) THESE LANDS YET TO BE LOCATED:

1. UNDER "CONCENTRATION" CONCEPT, PRIMARILY IN AREAS CONTIGUOUS TO THE URBAN CENTRAL AREA.
2. UNDER "DISPERSION" CONCEPT, PRIMARILY IN AREAS NOT CONTIGUOUS TO THE URBAN CENTRAL AREA

(e) PERMANENT PUBLIC OPEN SPACE & COMMERCIAL FORESTS  
(SEE p. 166)

proposed density standard of 3500 people per square mile, an additional 74 square miles of urban land are required. This 74 square miles is shown to scale on the map on page 60 and graphically in relation to existing urban land use on page 71 . The planning problem is to determine which are the most suitable 74 square miles in the region for conversion from rural to urban use. But before describing our approach to this problem (beginning on page 72 ), the following section outlines some considerations underlying the selection of density standards.

#### THE QUESTION OF URBAN DENSITY

The question of urban density standards is key to the planning procedure just described. In tackling this question, CRAG's Area Development Committee found trends indicating a lowering of overall urban gross densities. The Portland-Vancouver urbanized area dropped from 3400 to 3100 people per square mile between 1960 to 1970, for example, despite increases in outlying areas, and despite increasing proportions of building permits for new multiple-family housing units. This decrease is far from atypical, as the graph of comparative urbanized areas on page 69 shows.

Aside from trends, there are arguments favoring lower densities from a policy standpoint. It was concluded from a recent opinion poll of townhouses and condominiums, for example, that as a general rule the lower the density the higher the satisfaction on the part of the occupants (Urban Land, March 1973). Looking at density and the incidence of substandard housing, over 50 percent of Portland area census tracts estimated to contain only negligible (less than 5 percent) substandard housing are relatively low density -- mostly between 3000 and 4000 persons per square mile.

# PROPOSED DENSITY STANDARDS

## CRAG AREA DEVELOPMENT COMMITTEE

### A. Urban Central Study Area

Adopted Policy: "Determine maximum acceptable gross residential densities ... and an optimum regional pattern ranging from maximum to minimum... Encourage provision of as wide a range of housing types, costs and densities as housing market conditions will allow, subject to density ceilings ... Encourage new construction in accordance with the comprehensive plan on bypassed vacant lots."

#### Proposed Density Standards:

Existing Urbanized Area - Densities to be modelled after existing patterns and trends. It is assumed that bypassed vacant lots will gradually be utilized, that density declines due to deterioration will be arrested thru encouragement of rehabilitation and renewal, and that there will be no radical shifts in life styles either to apartment or estate-type living. The overall gross density standard and resultant population capacity of the existing urbanized area are established on the basis of an analysis of existing land use and density in each census tract, using the criteria in this paragraph.

Planned Urbanized Area Extensions -- Densities to be modelled after existing patterns and trends. These areas overall will not reach the densities found in the City of Portland currently, but it is assumed that a higher average density than currently exists in the Urbanized Area as a whole will be appropriate. This means adoption of an overall standard somewhere between 3,000 and 4,300 people per square mile for determining population capacity. Since residential development patterns are not fully committed in these areas, the overall standard is subject to revision following more detailed study of land capability, the desired land use pattern, and the ease of providing public facilities and services.

### B. Urban Outlying Study Areas

Policy and density standards are proposed to be the same as described for the Planned Urbanized Area Extensions.

### C. Rural Areas

Adopted Policy: "To insure that urban growth and development occurs in those places designated for urban settlement by the regional comprehensive plan, and to preserve all other areas as rural and/or relatively uninhabited."

Proposed Density Standard: In order to stabilize current land use patterns outside the urban service boundary, to alleviate pressure to subdivide rural parcels, to recognize the economic realities of currently "marginal" operations, and still to satisfy the demand for rural residences, a full range of new public policies and programs will be necessary, going beyond the subject of density standards. A density standard permitting only one dwelling per land parcel and not more than one additional division of an existing parcel, or some equivalent, would complement the other policies and programs required.



# URBAN DENSITIES

## URBAN HIGH DENSITY

OVER 10,000 PEOPLE PER SQ. MI.  
UNDER 2000 SQ. FEET OF SITE  
AREA PER HOUSING UNIT



## URBAN MEDIUM DENSITY

5000-10,000 PEOPLE PER SQ. MI.  
6000 SQ. FOOT LOTS TYPICAL



## URBAN LOW DENSITY

2000-5,000 PEOPLE PER SQ. MI.  
10,000 SQ. FOOT LOTS TYPICAL



## SUB-URBAN

1,000-2,000 PEOPLE PER SQ. MI.  
20,000 SQ. FOOT LOTS TYPICAL



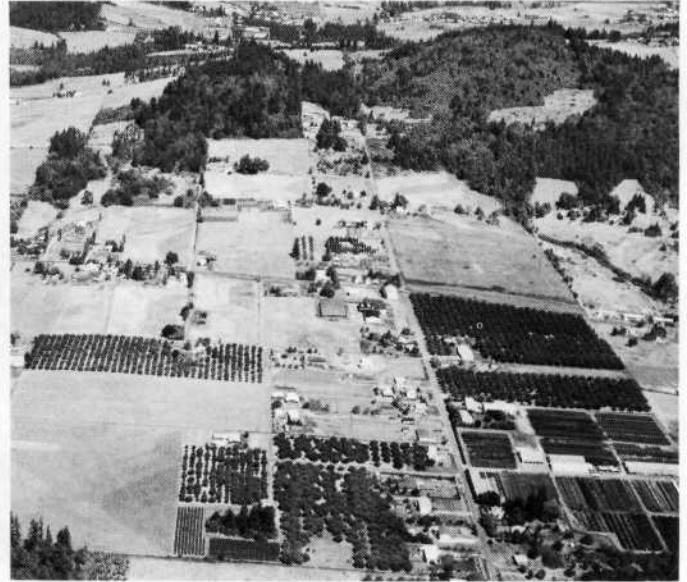
# RURAL DENSITIES

## RURAL RESIDENTIAL

400-1000 PEOPLE PER SQ. MI.  
2 TO 5 ACRE PARCELS



50-400 PEOPLE PER SQ. MI.  
5 TO 40 ACRE PARCELS



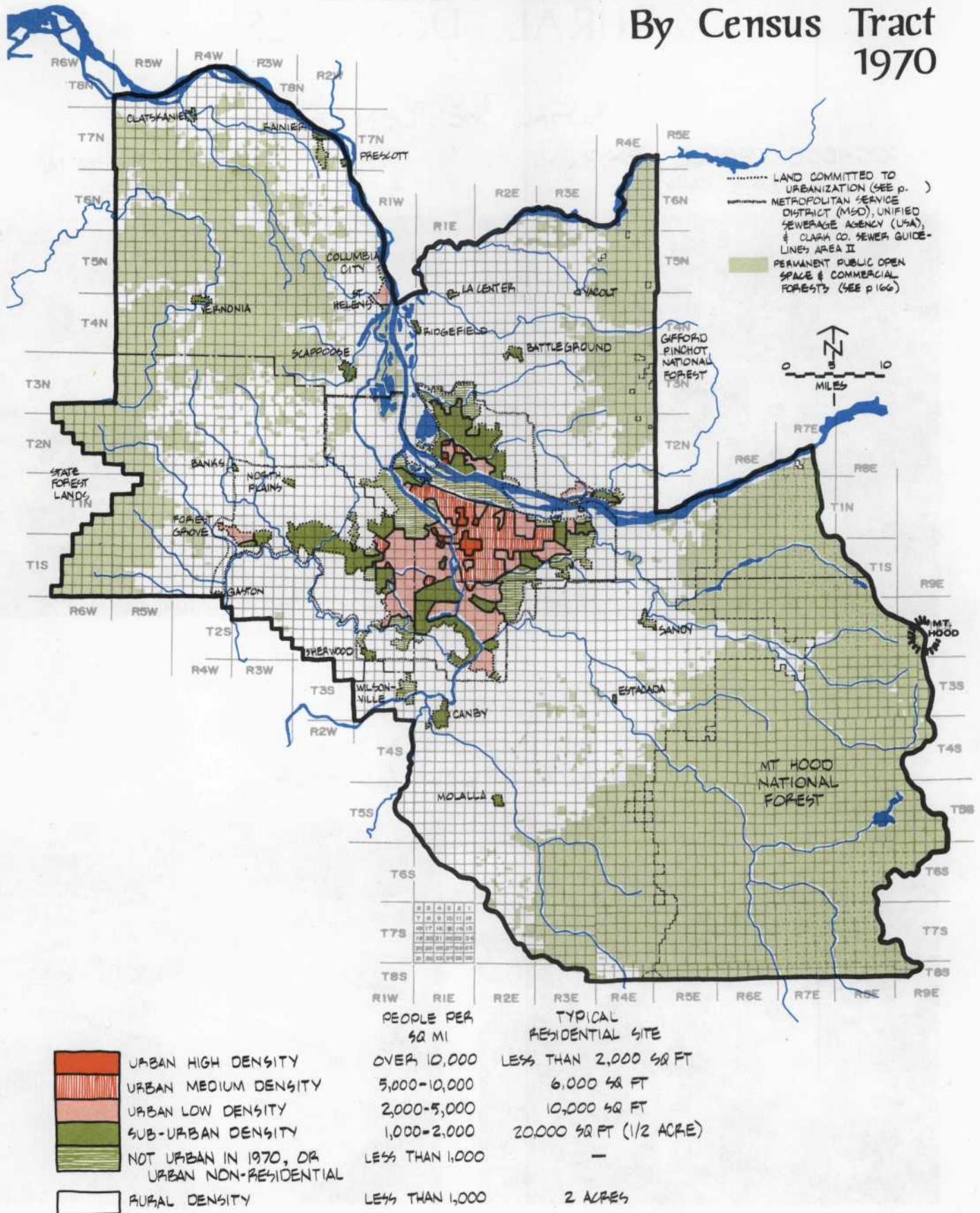
## AGRICULTURAL

0-50 PEOPLE PER SQ. MI.  
40 ACRE PARCELS & LARGER



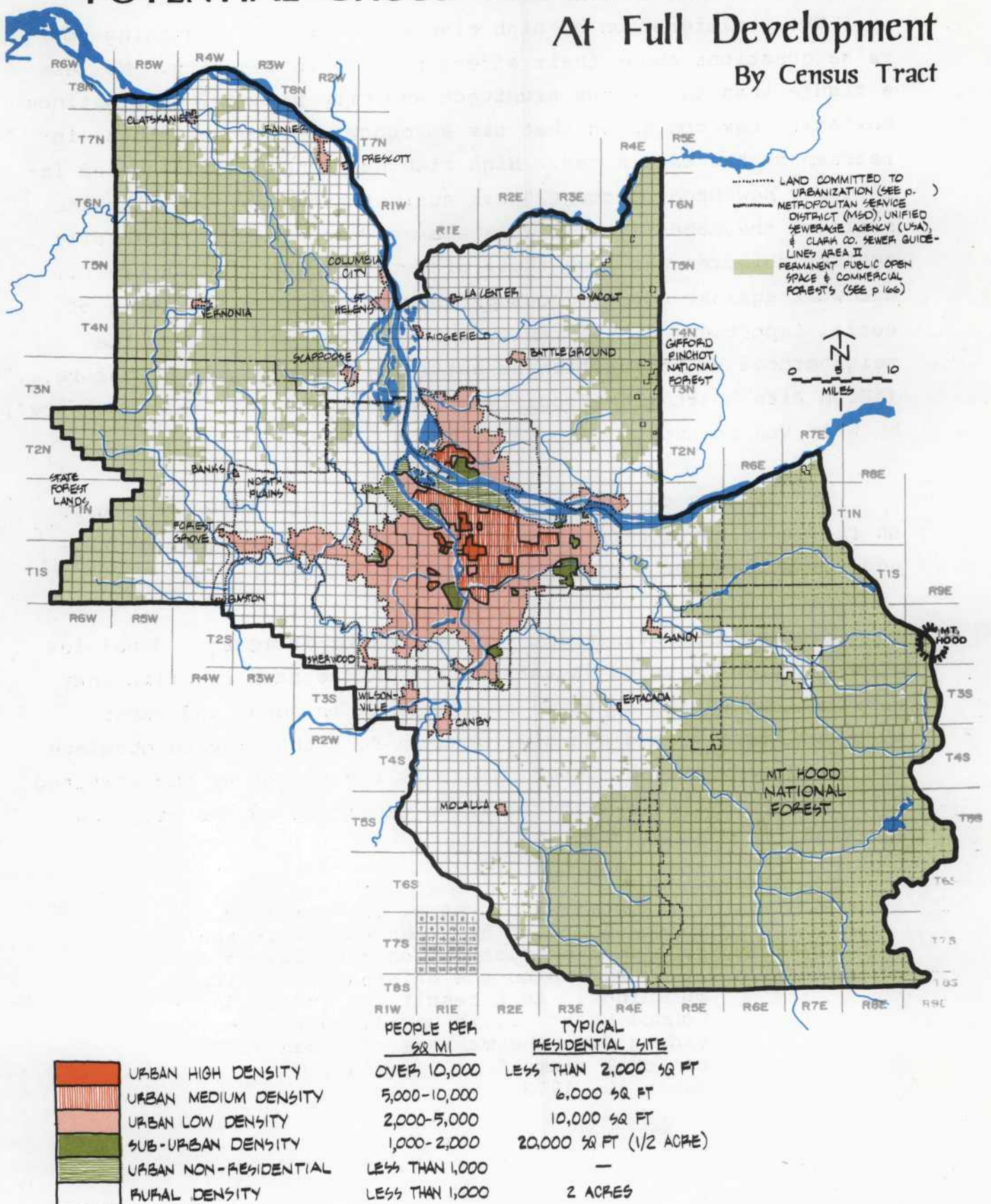


# GROSS POPULATION DENSITY By Census Tract 1970





# POTENTIAL GROSS POPULATION DENSITY At Full Development By Census Tract



The proliferation of high rise structures is beginning to raise questions about their affect on life in the city. No less a figure than the famous architect and city planner, Constantinos Doxiadis, has confessed that his advocacy of such buildings, in retrospect has been wrong. High rise buildings, he is quoted in a recent newspaper account, "work against nature by spoiling the scale of the landscape ... work against man himself, especially against children who lose their direct contacts with nature ... and work against society because they do not help the units of social importance -- the family and the extended family, the neighborhood -- to function as naturally and normally as before..." ("High Rise Apartments Probably Serve Vanity Rather than Humanity", by Wolf Von Eckardt, Oregonian, Jan. 4, 1973.)

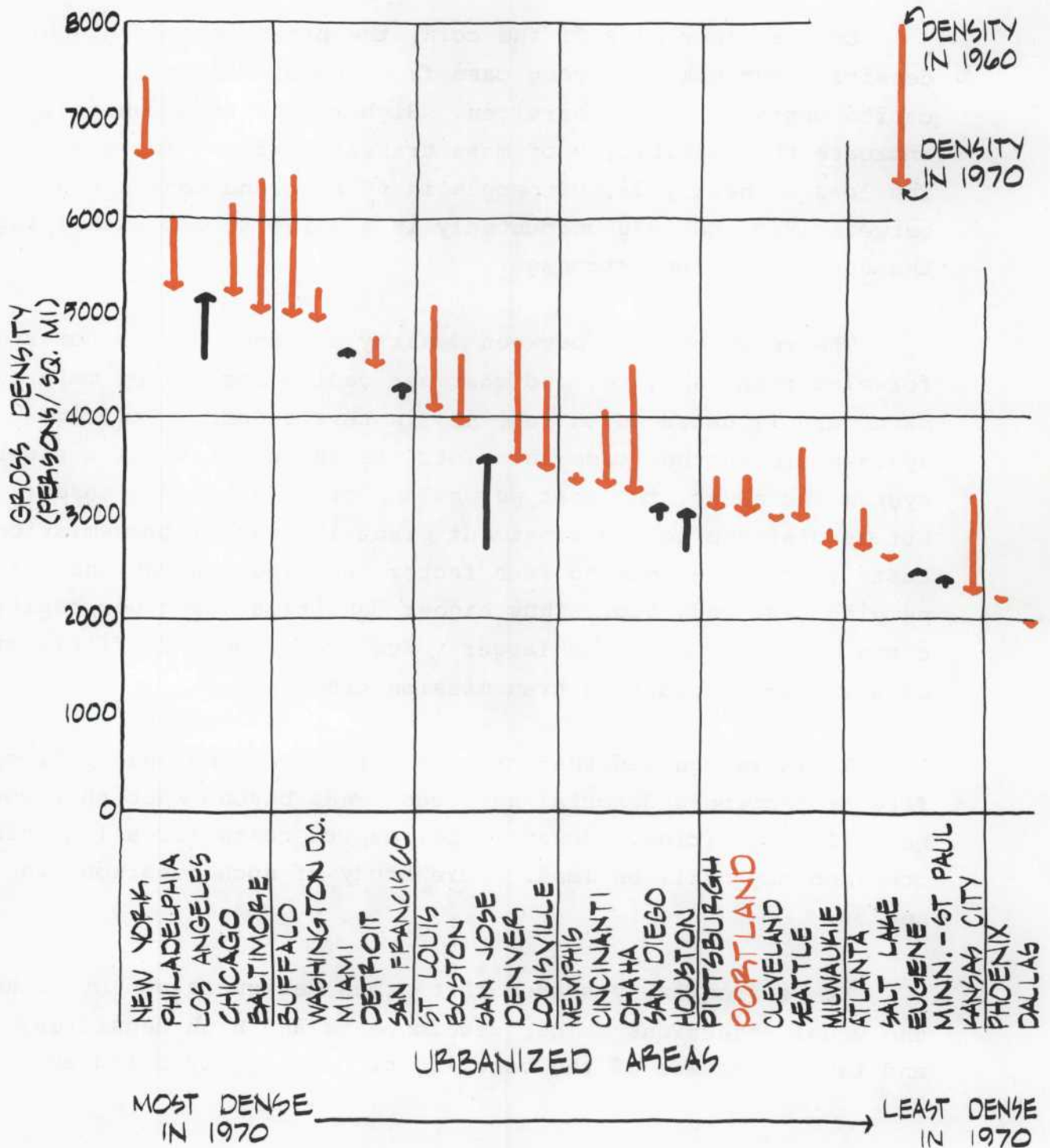
In the City of Portland the impact of high-rise structures on the urban environment has become a matter of public debate, and the subject of a proposed Impact Review Ordinance.

From another standpoint, the wisdom of increasing densities by developing bypassed vacant parcels in the name of efficiency assumes that unused capacity is available in sewer and water systems, streets, and schools, when in fact they may be obsolete and/or already over-burdened. This is the plight of the Portland School District, even with declining densities in the city, as described in a recent editorial:

"For almost eight years, the Portland School District has been caught in the financial problems which have forced it to scrimp on the maintenance of its buildings. As a result the Portland School Board ... is unwillingly presiding over the makings of urban educational slums." (Oregonian, March 12, 1973)



# DENSITY CHANGES 1960 TO 1970 IN SELECTED URBANIZED AREAS



Finally, the proponents of low density can challenge the wisdom of increasing densities at a time when higher incomes, shorter work weeks, automation, and video-telephones all will be running counter to the need for people to work close to where they live, to work in central locations, or to meet face to face.

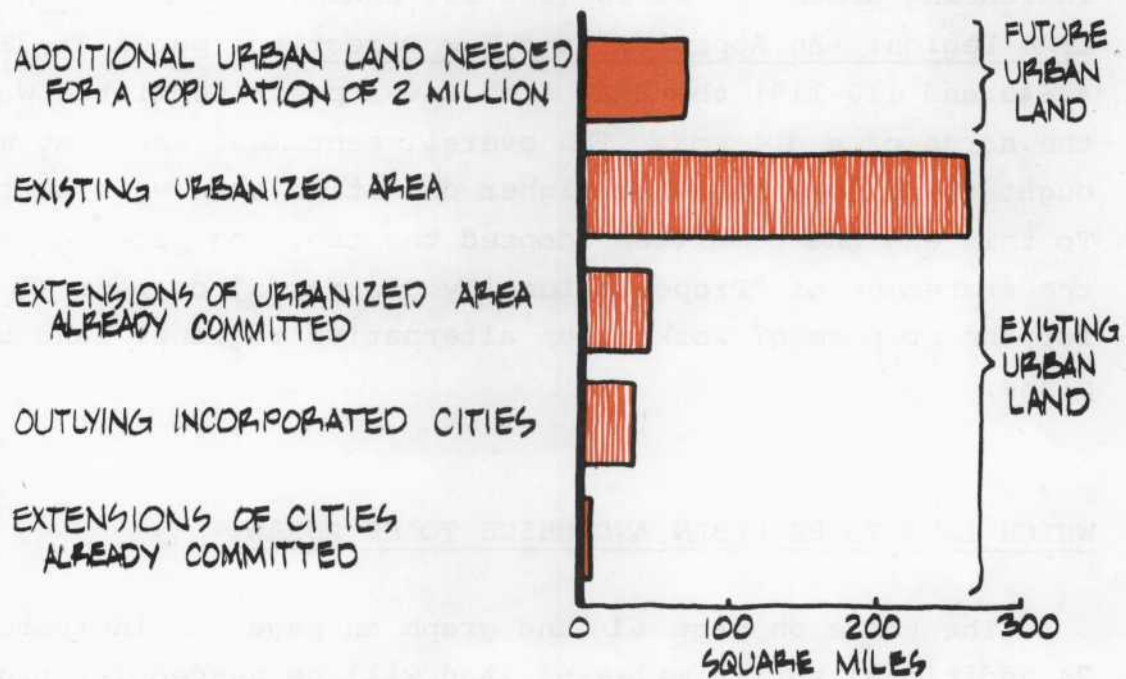
On the other side of the coin, the proponents of higher densities can make a strong case from the standpoint of per capita costs of public services. Higher densities generally increase the feasibility of mass transit systems, for example. The loss of nearly 35,000 people in 60 Portland census tracts between 1950 and 1970 undoubtedly is a large factor underlying the decline in bus patronage.

The relationships between density and cost per customer for electrical service, and cost per capita for street maintenance are illustrated on page 52 in this report. Sewerage systems are another case in point. As the capacity of a sewer system increases, the cost per gallon of capacity decreases; but as distance to the treatment plant increases, transmission costs increase -- due to such factors as pipe lengths, need for pumping stations, etc. Thus higher densities lower per capita costs either by creating larger volumes of flow and efficiencies of scale or by reducing transmission distances.

It is recognized that high densities may increase police, fire protection and social services needs beyond what they would be at low densities. However, per capita costs for all services combined may still be less. More study of such questions is needed.

It is frequently argued that urban designers can overcome the usual objections to big developments and high densities, and take advantage of the benefits of density, by doing an

## URBAN LAND NEEDS AT FULL DEVELOPMENT\*



\*AT 2 MILLION POPULATION (SEE P. 61, "POPULATION DISTRIBUTION BASED ON PROPOSED DENSITY STANDARDS")

outstanding design job. High densities do require greater insistence on quality design and high environmental standards, since if more people are to enjoy the same living space it must be under conditions that soften the abrasiveness of close quarters. But some of the cost advantages of density then must be traded off to meet the increased costs of urban design and, more critically, increased expenditures for parks and public open spaces to replace the private open spaces and vacant lots no longer available.

Faced with these and other arguments for and against increasing urban densities (see for example, Planning in the CRAG Region: An Appraisal and New Direction, pages 38-39, 42-45 and 110-119) the CRAG Area Development Committee was on the horns of a dilemma. The overall sentiment was that we ought to promote somewhat higher densities than we know today. To this end the Committee adopted the table on page 61 and the statement of "Proposed Density Standards" on page 63, for the purpose of working up alternative regional land use plans.

#### WHICH LAND TO BE URBAN AND WHICH TO BE RURAL

The table on page 61 and graph on page 71 indicate that 74 additional square miles of land will be needed for urban uses given a design population of two million people for the CRAG region. This is 74 square miles over and above the 303 square miles already in the urban category and the 55 square miles which are urban extensions already committed.

The next question, if we are to impose planning controls on development rather than let the market continue to dictate urban sprawl, is which of the square miles available in the



SEVEN ALTERNATIVE  
SKETCH PLANS,  
LOCATING THE ADDITIONAL  
URBAN LAND NEEDED  
FOR A POPULATION  
OF 2 MILLION  
WERE CONSIDERED...

THREE WERE  
SELECTED FOR  
FURTHER DETAILING.

## SEVEN ALTERNATIVE SKETCH PLANS

### ● Sketch Plan I -- Based on the Interim Regional Land Use Plan

- a) Emphasizes development contiguous to the urbanized area, keeping within the boundary for urban expansion delineated in CRAG's Interim Regional Land Use Plan (Oct., 1970 - see Planning in the CRAG Region: An Appraisal & New Direction, page 71).
- b) Develops areas which presently have the most pressure for urban expansion (e.g. east of Vancouver, southeast of Gresham, near Sunset Highway, east Washington County, & Interstate 5 to Wilsonville).
- c) De-emphasizes outlying cities.

### ● Sketch Plan II -- Based on the Priority Areas Delineated Under the Interim Regional Development Policy (see page 87)

- a) Keeps all urban development within the five priority areas.
- b) Uses all of areas 1-4 and parts of area 5 which are contiguous to the urbanized area.
- c) Provides some expansion in outlying cities.

### ● Sketch Plan III -- Based on a Combination of I and II.

- a) Keeps urban development within the boundary for urban expansion delineated on the Interim Regional Land Use Plan, but otherwise allocates it to Interim Regional Development Policy Areas.
- b) Uses all of areas 1 - 4 and parts of area 5.
- c) De-emphasizes outlying cities.

### ● Sketch Plan IV -- Based on Concentration Concept and Efficiency in the Provision of Public Services.

- a) Emphasizes development close to the region's center, utilizing areas presently having the most pressure for urban conversion.
- b) Uses all of areas 1 - 3 on the Interim Regional Development Policy, and parts of area 4 closest to the region's center.
- c) Provides some expansion in outlying cities.

### ● Sketch Plan V -- Based on Dispersion Concept, development in the foothills, preservation of maximum agricultural land.

- a) Uses all of areas 1 - 3 on the Interim Regional Development Policy.
- b) Preserves agricultural land by selecting new urban sites in the foothills between 400 and 1000 feet elevation, where slopes do not exceed 25%.
- c) Provides some expansion in outlying cities.

### ● Sketch Plan VI -- Based on Dispersion Concept, emphasizing existing outlying cities.

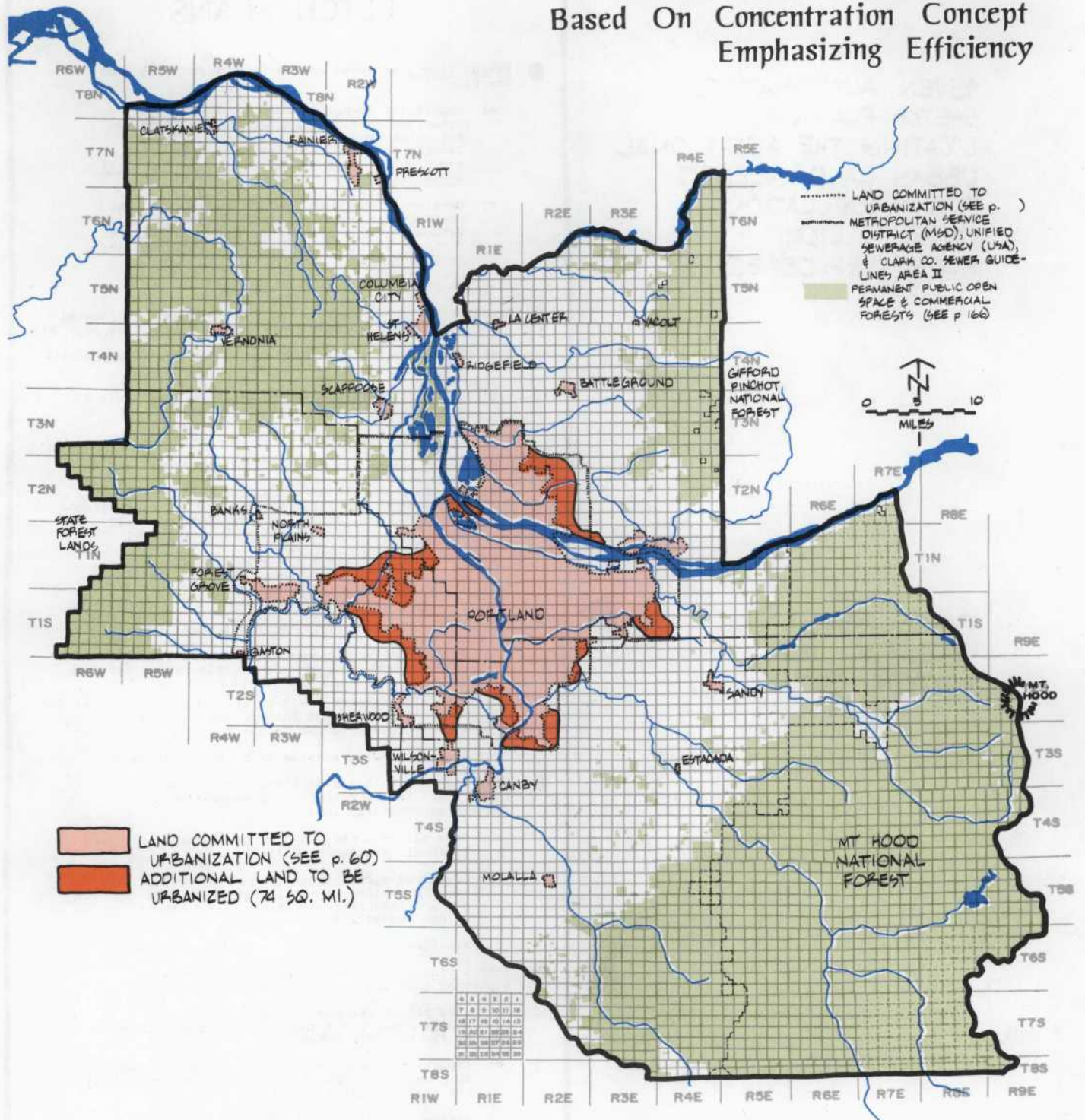
- a) Uses all of Interim Regional Development Policy Areas 1 - 3 and parts of Area 4 closest to the region's center.
- b) Emphasizes the directing of urban development in proximity to existing communities, especially the small outlying cities.
- c) Preserves agricultural land by promoting compactness and clustering of new development.

### ● Sketch Plan VII -- Based on a Combination of the Concentration and Dispersion Concepts.

- a) Uses all of Interim Regional Development Policy Areas 1 - 3.
- b) Selects the remaining square miles needed from the following:
  - . Open areas close to the region's center.
  - . Foothills with view possibilities.
  - . Outlying cities
  - . A recreational community (Hoodland)

# SKETCH PLAN IV

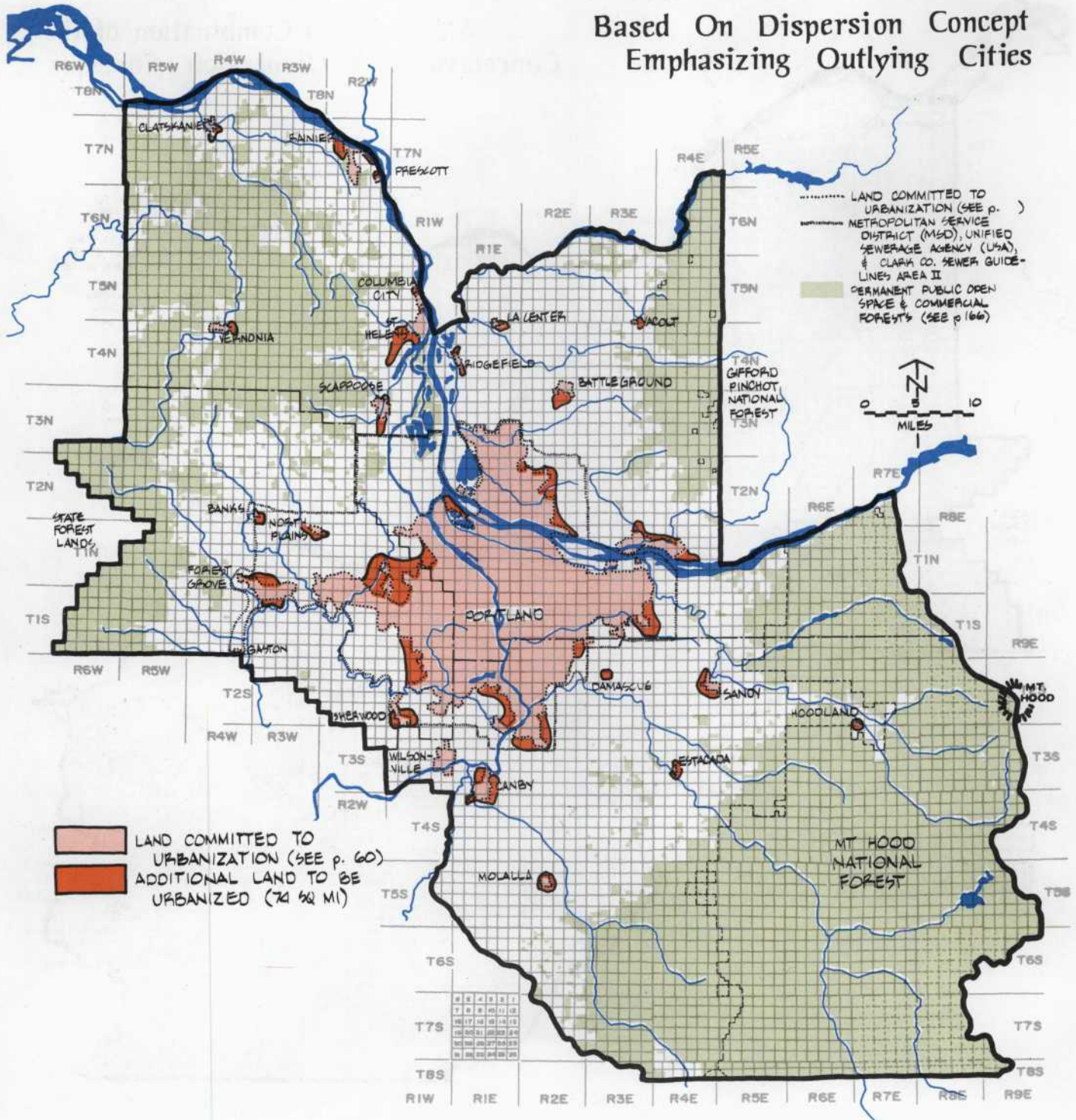
Based On Concentration Concept  
Emphasizing Efficiency





# SKETCH PLAN VI

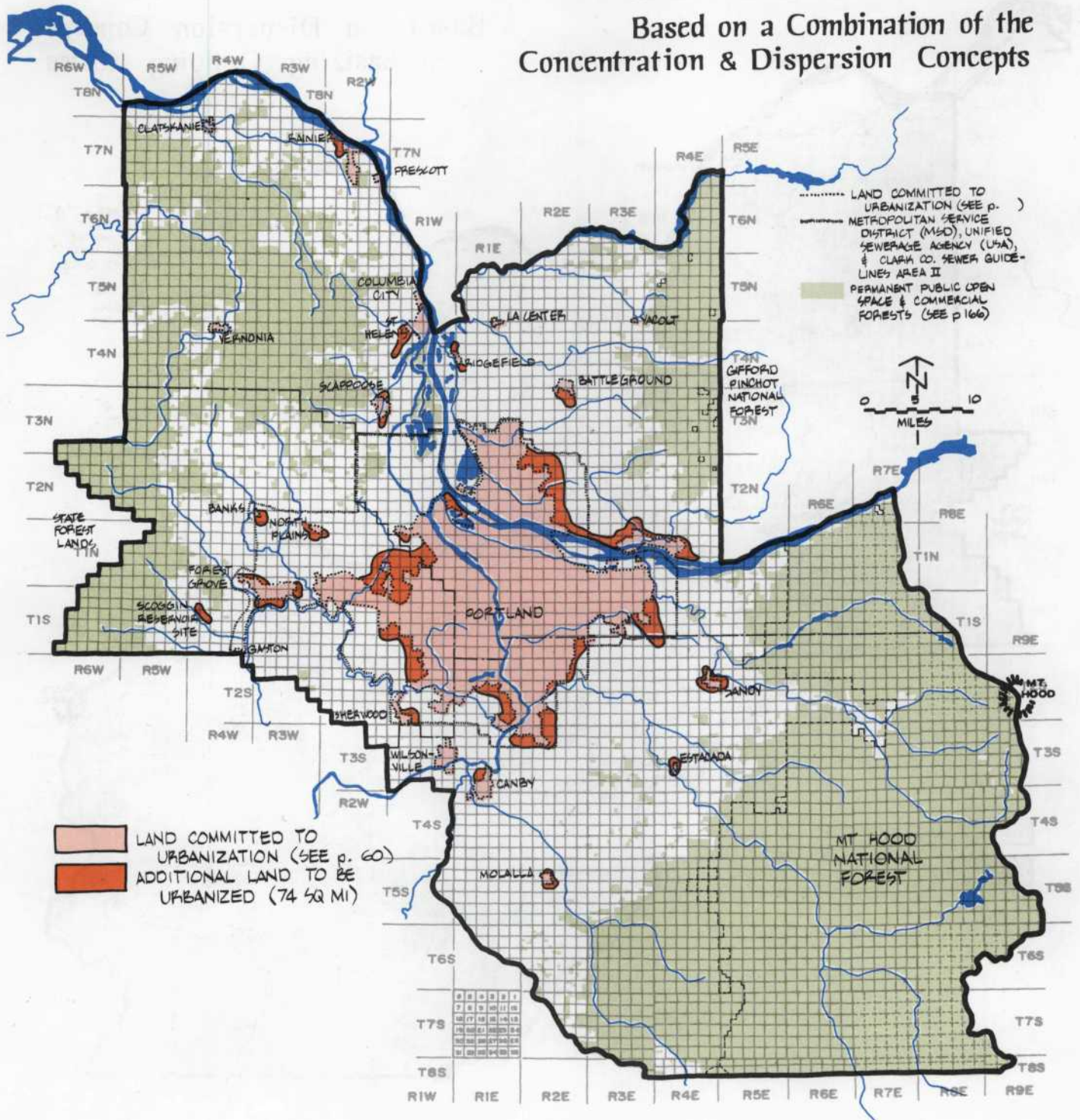
Based On Dispersion Concept  
Emphasizing Outlying Cities





# SKETCH PLAN VII

Based on a Combination of the  
Concentration & Dispersion Concepts



region are most suitable for urban use and which are most needed for other use? Which square miles would work the best in terms of a transportation system and relation to existing development and services? Which would be most suitable in terms of husbanding resources -- the natural values in fields and forests, rivers and hills? Which would enhance the identity of neighborhoods and communities? In short, which square miles would afford a regional land use plan which would come closest to meeting the goals and policies adopted by the CRAG Executive Board?

In order to answer this question the CRAG Area Development Committee examined seven alternative sketch plans. All of the sketches were aimed to meet the adopted goals and policies. All were based on the adopted density standards and the objective of providing for not more than a doubling of the rural population. All of the sketches took into account in a preliminary way a wide range of data on natural and man-made conditions. The sketches differed on which goals and values they emphasized.

The seven alternative sketch plans examined by the Area Development Committee are outlined on page 73. It was the recommendation of the Committee that sketch plans IV, VI and VII be selected for more detailed design study. Sketch Plan IV, based on the concentration concept and emphasizing efficiency in the provision of public services, is shown on page 74. Sketch Plan VI is based on the dispersion concept and emphasizes existing outlying cities. It is shown on page 75. A combination of these two concepts, Sketch Plan VII, is shown on page 76.

Sketch Plans I, II and III were rejected as locking us too much into present patterns. Sketch Plan V, which selects new urban sites in the foothills, was rejected as too extreme a solution, and one which fails to capitalize on the values in



existing small outlying communities.

It may be noted that housing everyone and everything in brand new quarters costs more, and that we're already in a time of excessive costs for homes for middle and lower income families with no respite in sight. New planned communities require large-scale centralized control, costs of overcoming fragmented land ownership, costs of holding the site vacant during the first stages which may last for years, costs of building capacity in facilities in advance of need, costs of developing new institutions for planning and control. To enable low-income households and many small business firms, especially those starting out, to survive in a new city, some form of public subsidy would be necessary to cover the higher cost of occupying new structures. The alternative would be extreme economic segregation and only large-scale established business enterprises in the new city.

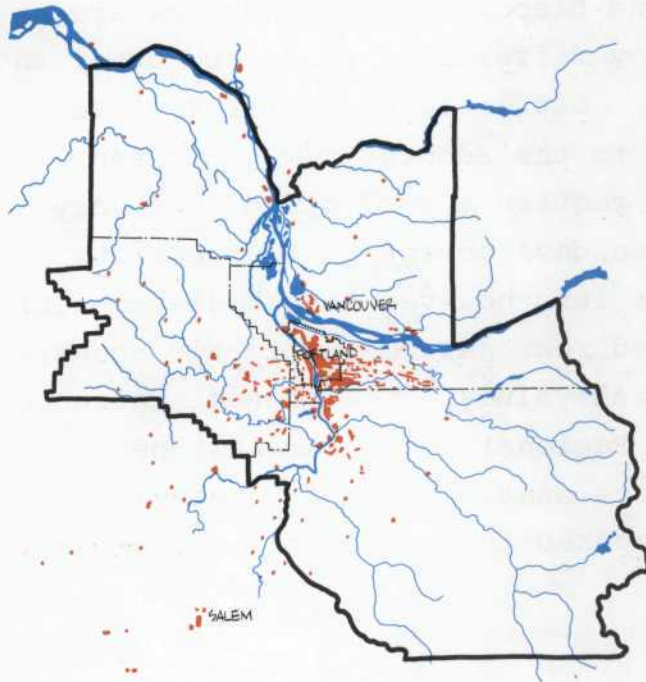
#### CHOICES FOR THE FUTURE

The seven sketch plans and the three recommended by the Area Development Committee for detailed design study are but a small selection from a wide range of possibilities if we, in fact, are to channel future urban development into something other than a sprawl pattern. Modifications and possible preferred alternatives will emerge through the process of obtaining public reactions, through additional systematic analysis of environmental impacts and natural and man-made factors (see Part V), and through testing of alternatives for transportation feasibility, cost of public services, social and economic implications, etc. (see "Regional Planning Sequence" on page 3).

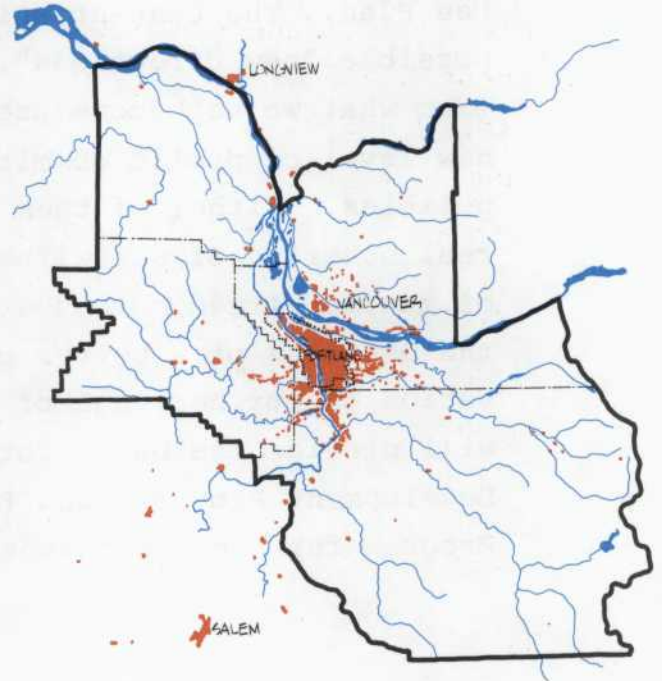
Meanwhile, the maps on pages 80 and 81 put the process into perspective by illustrating where we've been -- 1910, 1940, 1960 and 1970 -- compared to projected trends for the future if we carry on business as usual, and compared to the Interim Land Use Plan. The Concentration and Dispersion alternatives are possible "new directions". They differ both from each other and from what we've become used to. Either of them will require a new level of public commitment to the adopted new goals and policies. Either of them will require a tradeoff of the very real benefits of sprawling urban development -- the benefits of maximum freedom to use one's land however one chooses -- for the benefits of a better planned regional community and conservation of our heritage of natural values. The concept chosen will provide the basis for the Regional Zones, Urban Zones Development Program, and Resource Management and Development Program for Non-Urban Zones proposed in Part IV of this report.

## WHERE WE'VE BEEN

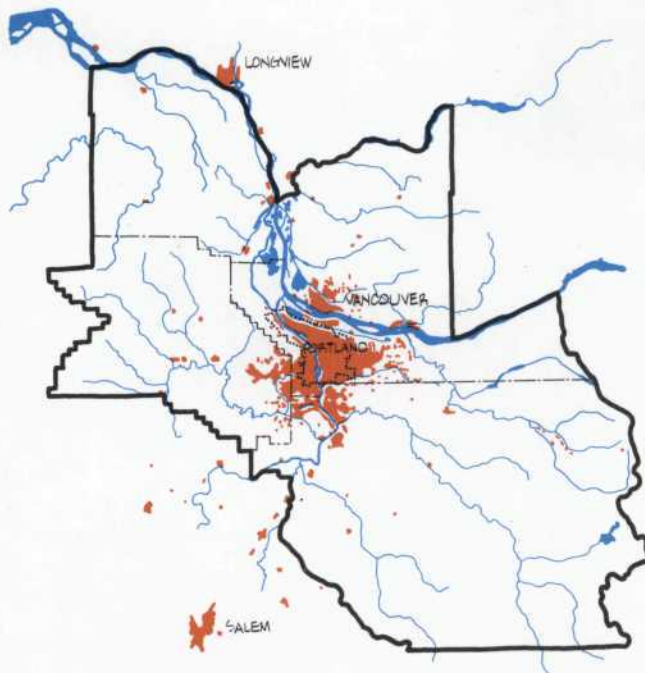
1910



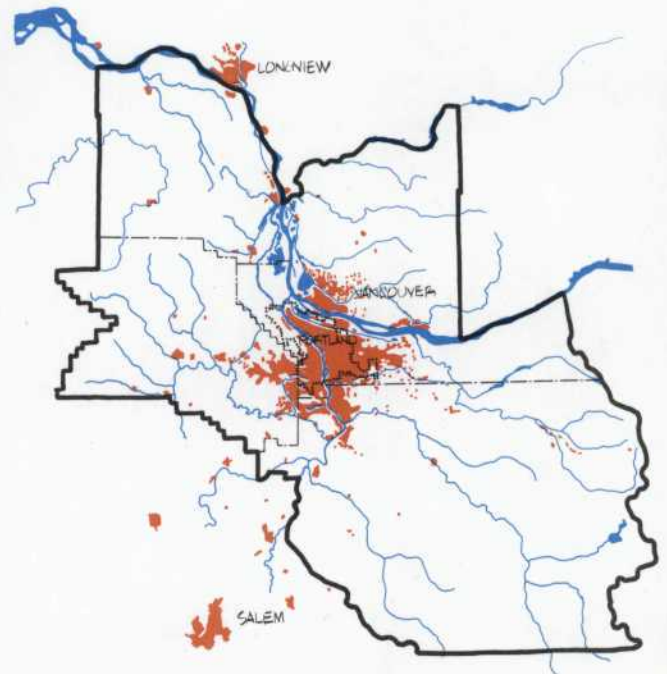
1940



1960



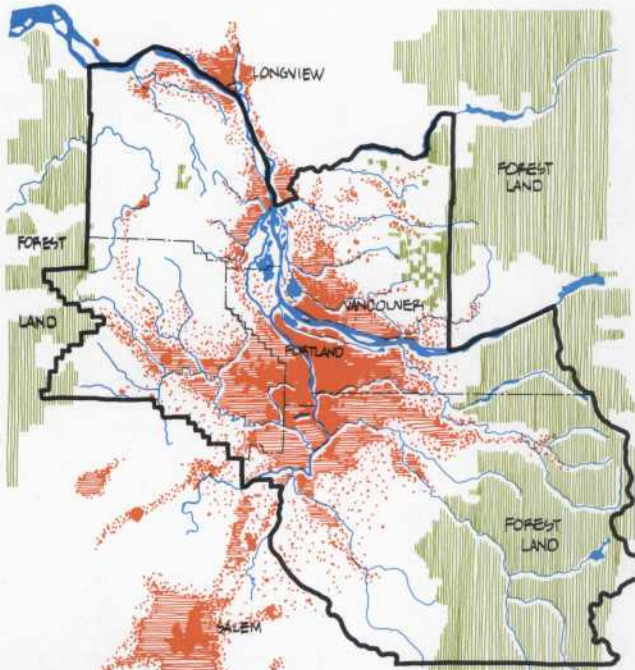
1970





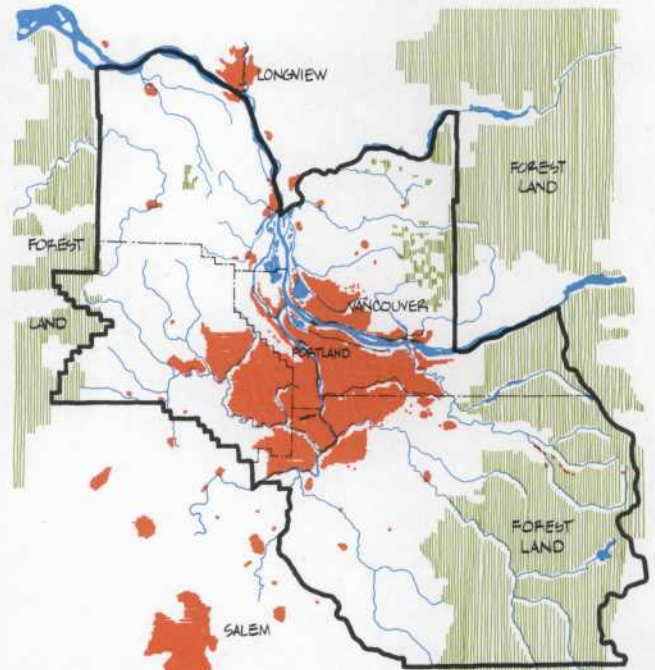
# CHOICES FOR THE FUTURE

BUSINESS AS USUAL\*  
(PROJECTED TRENDS)



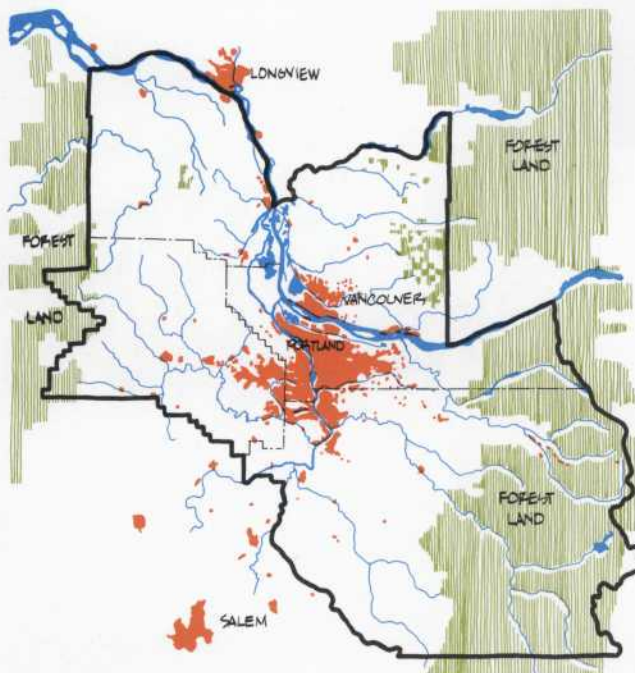
\* PROJECTED FROM MAPS ON PAGES 216, 217 AND 218 SHOWING CHANGE IN HOUSING 1960-72, SUBDIVISION ACTIVITY SINCE 1970, & EXISTING ZONING.

INTERIM PLAN\*\*

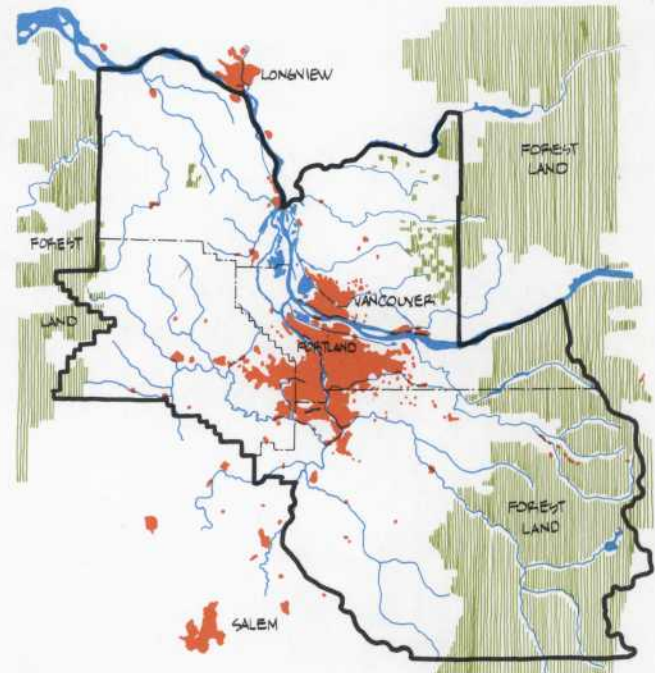


\*\* INTERIM REGIONAL LAND USE PLAN\* ADOPTED BY CRAG EXECUTIVE BOARD IN 1970.

CONCENTRATION



DISPERSION







Rx FOR URBAN SPRAWL



PART IV  
A PROPOSED  
SIX-POINT PROGRAM  
TO MEET REGIONAL GOALS

## IMPACTS OF GROWTH

Our traditions and rules of thumb for social and economic management have been developed in a period when the inputs to production from nature were ... unlimited. There was no significant shortage of agricultural land, water, natural resources, energy, or pollution dissipation capacity. But times have changed. In every direction human activity is now being limited by the maximum capacity of the natural environment.

When there are no geographical or environmental limits, economic growth can run ahead of population growth to increase the public well-being. During the growth phase, the many goals of society tend to be independent of one another and can be separately pursued.

In the past, if an individual wanted more personal freedom, he could move to the unsettled frontier, while at the same time improving his standard of living by farming rich and virgin agricultural land. But as space fills up, all of the social goals begin to interact more strongly with one another.

MORE AND MORE THE SYSTEM BEGINS TO OFFER ONLY TRADE-OFFS AND COMPROMISES. IF ONE WANTS A HIGHER POPULATION, HE MUST ACCEPT LESS PERSONAL FREEDOM. IF THERE IS TO BE MORE INDUSTRY, THERE WILL NECESSARILY BE MORE GOVERNMENT REGULATION AND MORE SOCIAL GROUPS TO INTERVENE IN EACH STEP AND ACTION. THE HIGHER THE SOCIAL STRESSES FROM GROWTH BECOME, THE MORE GOVERNMENTAL MACHINERY WILL BE ASSEMBLED TO FIGHT THE SYMPTOMS.

-- Jay W. Forrester, MIT

- The social, economic and political forces which have caused urban sprawl in every metropolitan area in the country are part of a complex system -- a total way of doing things. Many changes will be required in how we do things if urban sprawl is to be halted. Otherwise the old pressures inevitably will breach our new objectives.
- The Six-Point Program presented in the following pages provides a start for public discussion. The proposals are sweeping in scope. They are mutually supporting, interlocking components of a comprehensive approach.

#### SHORT RANGE: FOR IMMEDIATE ACTION BY CITIES AND COUNTIES

1. ADHERENCE TO THE INTERIM REGIONAL DEVELOPMENT POLICY . . . . .	87
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#### LONG RANGE: FOR PUBLIC CONSIDERATION IN CONJUNCTION WITH REGIONAL LAND USE CONCEPTS

2. POPULATION GROWTH GUIDELINES . . . . .	105
3. ESTABLISHMENT OF REGIONAL ZONES & REVOLVING FUND . . . . .	115
4. DEVELOPMENT PROGRAM FOR URBAN ZONES . . . . .	127
5. RESOURCE MANAGEMENT & DEVELOPMENT PROGRAM FOR NON-URBAN ZONES . . . . .	159
6. REVISION OF THE PROPERTY TAX SYSTEM . . . . .	177





**1.**  
**Adherence to the  
Interim Regional  
Development Policy**

"IT MAKES SENSE TO CHANNEL COMMERCIAL, WHERE  
INDUSTRIAL & RESIDENTIAL DEVELOPMENT, WHERE  
FEASIBLE, INTO AREAS WITH EXCESS CAPACITY OF  
PUBLIC FACILITIES, RATHER THAN ENCOURAGE GROWTH  
IN PRESENTLY UNSERVICED AREAS WITH INADEQUATE  
CAPACITY. . . IT IS POSSIBLE TO AVOID MUCH OF  
THE COST OF 'LEAP-FROG' DEVELOPMENT & THUS  
PROMOTE EFFICIENCY IN THE PUBLIC SECTOR."

RUSSELL BEATON  
WILLAMETTE UNIVERSITY

## LAND USE PROBLEMS AND ISSUES

CRAG is engaged in the preparation of a regional land use plan supported by appropriate transportation, sewerage, water, solid waste, and park and open space systems. Adoption of the total Regional Comprehensive Plan is scheduled for the middle of 1976. If the present rate of development of the metropolitan area continues during the period that this planning effort is underway, as is likely, it could foreclose many land use options or even render much of the planning obsolete.

During 1971 building permits were issued for 9,074 new housing units in the unincorporated parts of Multnomah, Clackamas, Washington, Clark and Columbia counties. New housing units in unincorporated areas accounted for 55% of all new housing units in the CRAG area. At this rate 27,000 new housing units would be added in unincorporated areas over a three year period (or about 84,000 people assuming 3.1 people per housing unit).

If this development were to occur outside the urbanized area, and at a gross density of 2400 people per square mile (comparable to the urbanized area excluding the City of Portland), it effectively would commit 35 square miles of additional land to urbanization. This compares with an urbanized area total of 267 square miles in 1970. On the other hand, if this development were to occur within areas already committed to urbanization, filling in bypassed tracts and thereby raising gross densities, most options for long-range planning would still be left open, although it would be harder to obtain land for new arterial street improvements or for sites for schools, parks and other public facilities.



## INTERIM REGIONAL OBJECTIVE

The extreme response to this land use problem, and the one which would achieve the goal of keeping open all future options, would be to declare a moratorium on all new development pending completion of the Regional Comprehensive Plan. Clearly, this solution would create severe hardships.

On April 19, 1973 the CRAG General Assembly, on the recommendation of the Executive Board, unanimously adopted a more moderate approach. The adopted statement spelled out the following "interim objective":

"Encourage development on the vacant lands lying within the already developed areas where services are available, thus eliminating the proliferation of public services into undeveloped areas and thereby lessening the degree of urban sprawl and encouraging better utilization and a higher economic return on existing facilities."

## INTERIM REGIONAL DEVELOPMENT POLICY

The statement adopted by the General Assembly specified five priority areas for urban development in the immediate future. These priority areas are numbered from I to V with the lowest number indicating the highest priority for growth. The criteria for the 5 priority areas are:

- I. Sewered or sewers funded.
- II. Already urbanized or surrounded by development, but unsewered.

- III. Not significantly urbanized, but sewers are programmed or area is inside an incorporated city.
- IV. Unsewered but public water available, land use zoning permits urban use.
- V. Unsewered and public water unavailable, but land use zoning permits urban use.

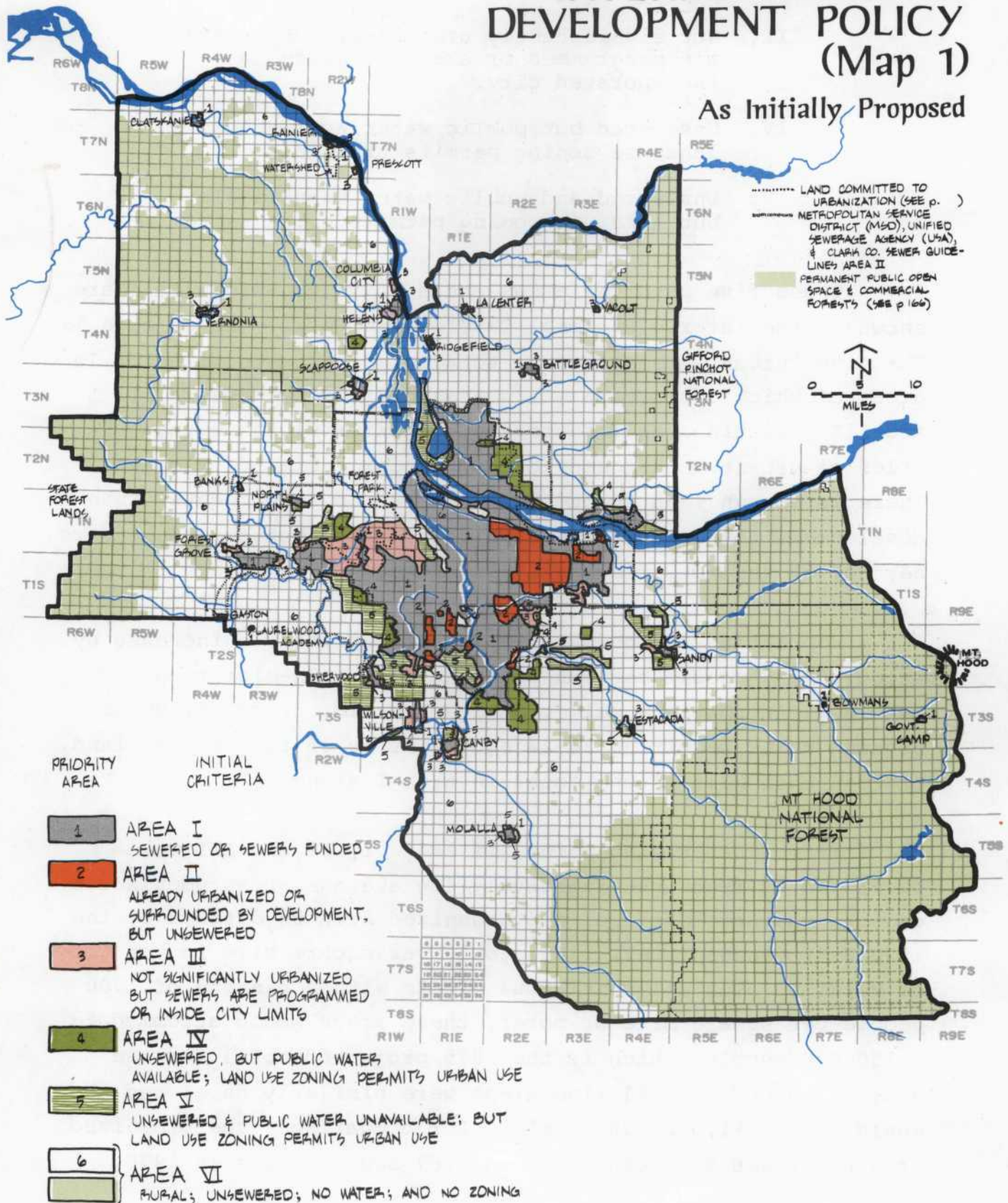
These five priority areas and a sixth non-urban area are shown on the Interim Regional Development Policy map on page 95. The five "urban" areas cover a total of 500 square miles of land area, of which 370 square miles are in priority areas I, II and III. Within area I there are approximately 45 square miles of vacant land zoned to permit residential development. There is enough land in these five areas to accommodate urban development not only for this interim period but for many years beyond, as the following analysis shows.

Population in the CRAG region is expected to increase by about 70,000 people between 1973 and 1976. In-migration and new family formations will create a need for 50 to 55,000 new housing units requiring 20-22 square miles of residential land, or less than half of the total in area I alone.

From another standpoint, if areas I, II and III were developed to reach the relatively low average gross population density characteristic of the Urbanized Area as defined by the 1970 U.S. Census (i.e., 3100 people per square mile in the City of Portland plus all contiguous blocks with a density of 1000 people per square mile or more), these areas would accommodate 1,150,000 people, which is the 1975 projected total for the entire region. If all five areas were similarly developed they would contain 1,550,000 people. For comparison, the Urbanized Area comprised 825,000 people and 267 square miles in 1970.

# INTERIM REGIONAL DEVELOPMENT POLICY (Map 1)

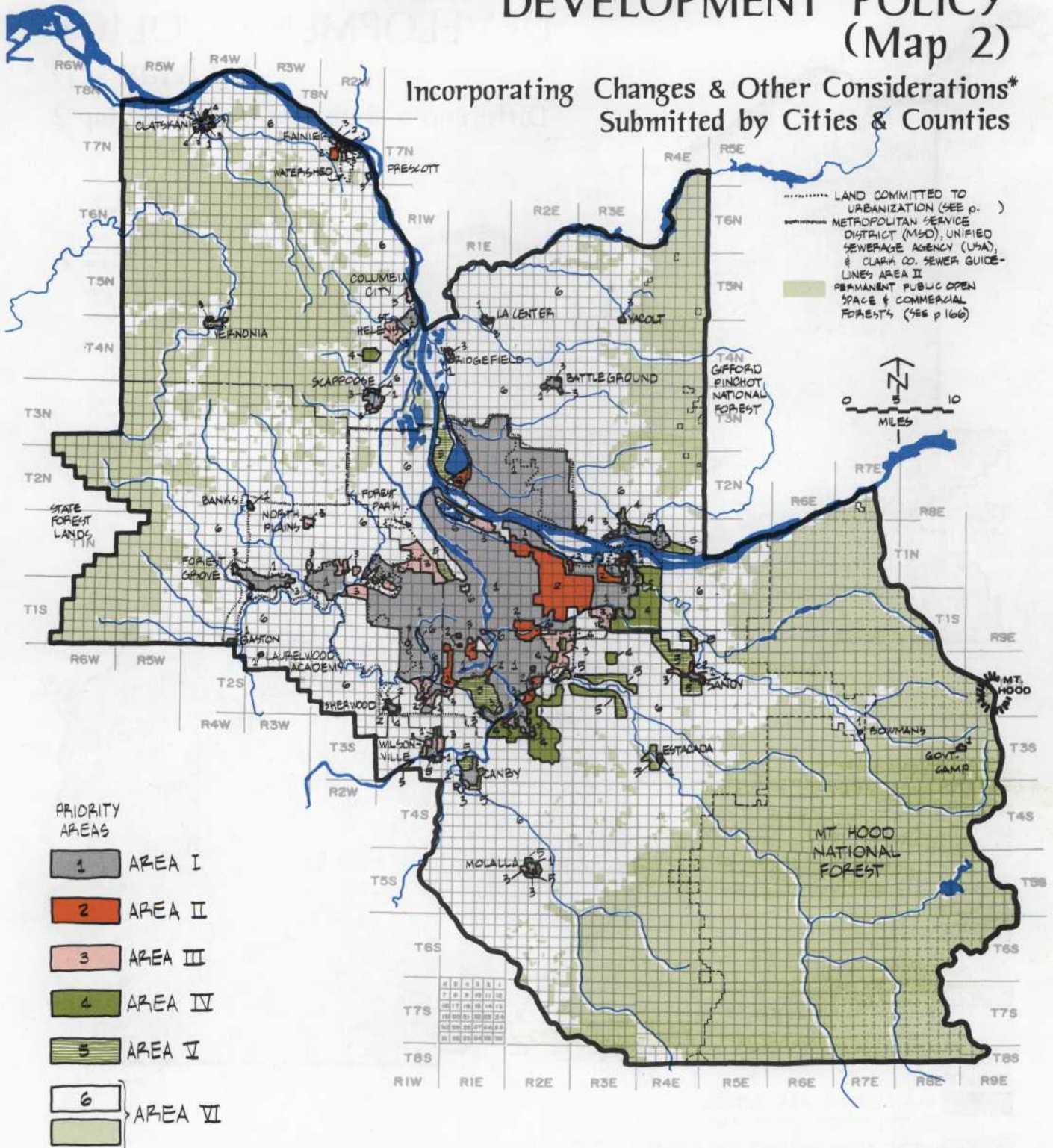
As Initially Proposed





# INTERIM REGIONAL DEVELOPMENT POLICY (Map 2)

Incorporating Changes & Other Considerations\*  
Submitted by Cities & Counties

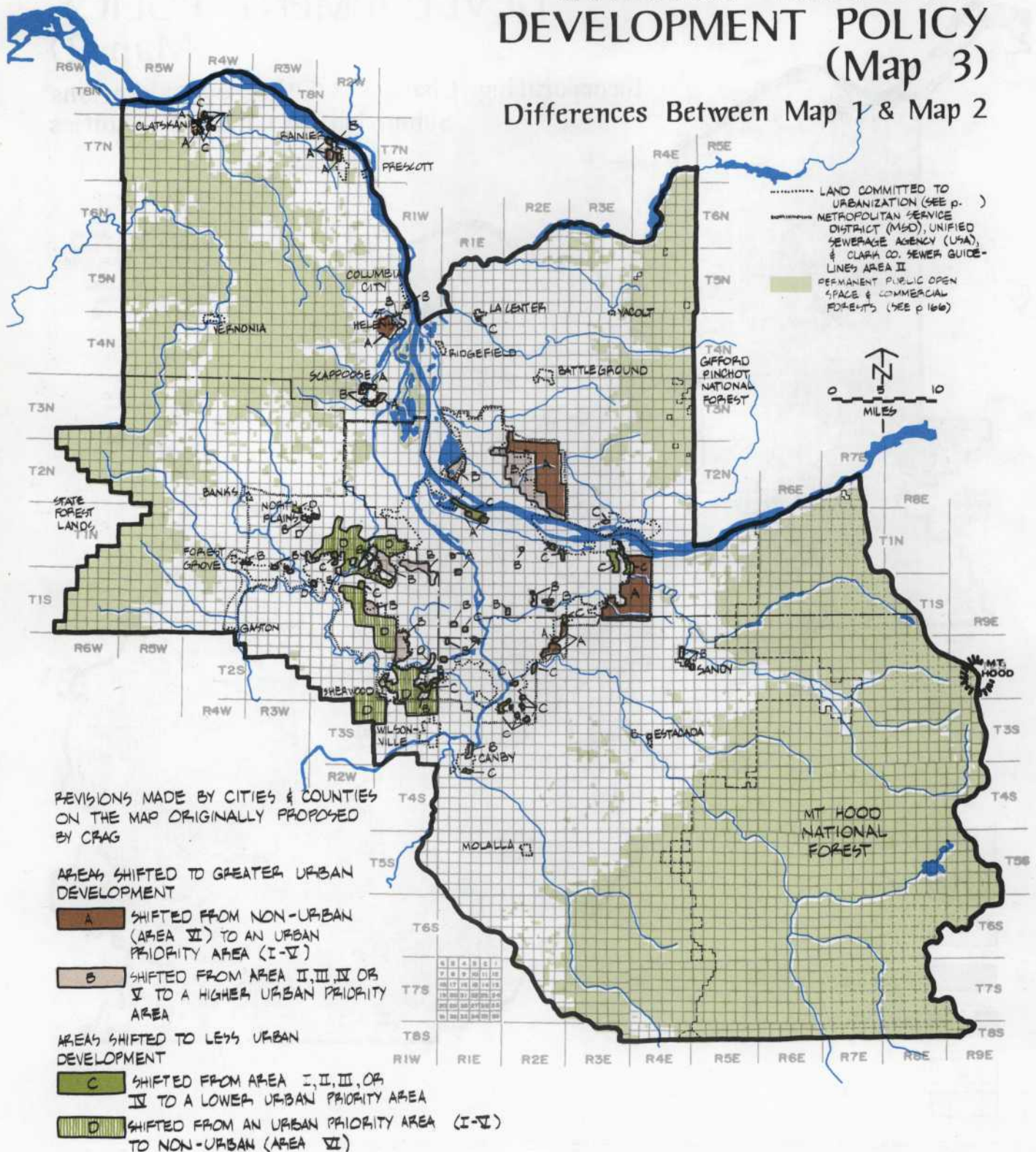


\*THESE OTHER CONSIDERATIONS HAVE THE EFFECT OF EXPANDING AND/OR EXCEPTING THE INITIAL CRITERIA ON MAP 1.



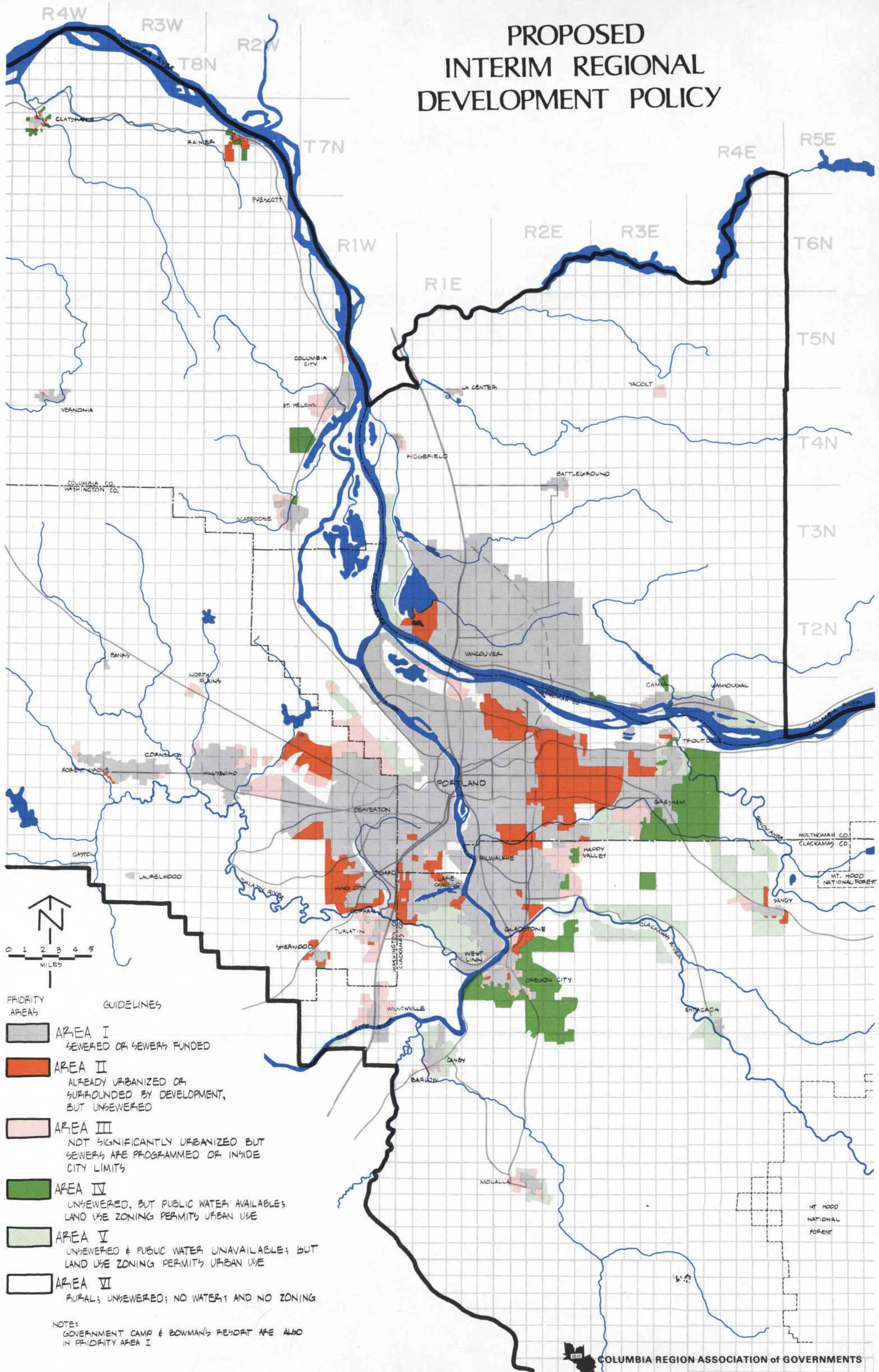
# INTERIM REGIONAL DEVELOPMENT POLICY (Map 3)

Differences Between Map 1 & Map 2





# PROPOSED INTERIM REGIONAL DEVELOPMENT POLICY







(For further discussion of population densities, including proposed densities, see pages 62 to 72.)

#### REVIEW PROCESS

In order to permit local review of the initial priority areas and of the criteria on which they were based, the statement adopted by the General Assembly outlined a review process. The process aimed at final adoption of the Interim Policy by the General Assembly, followed by adoption by individual cities and counties.

The first step in this process was for CRAG to send to each city and county in the CRAG region a copy of a detailed map depicting the priority areas within its jurisdiction. Jurisdictions reviewed the proposed areas and submitted changes and explanations to CRAG.

Map 1 on page 92 shows the priority areas initially proposed by CRAG. Map 2 shows the pattern of areas which result when the changes submitted by the local jurisdictions are incorporated. The differences between the two maps are shown on Map 3. The highlights of Map 3 are (1) the shifting of several square miles in Multnomah and Clark counties from non-urban Area VI to an urban priority; (2) the shifting of several square miles in Washington County from an urban priority to non-urban; and (3) the shifting of numerous smaller areas from one urban priority to another (usually higher) urban priority. Map 4 shows priority areas proposed for public hearings, after resolving minor inconsistencies and problems in Map 3.

As of this writing this material is under consideration by the CRAG Executive Board together with a draft of criteria and procedures for implementing the Regional Development



Policy as described below. The next step of the review process outlined by the General Assembly is the holding of hearings in each county to acquaint the public with the proposed Development Policy and to receive comments.\* Adjustments will be made as necessary, and a final Policy presented for adoption by the General Assembly and then individual cities and counties.

#### IMPLEMENTATION OF THE INTERIM REGIONAL DEVELOPMENT POLICY

The Interim Regional Development Policy provides a framework within which urban growth can be guided and controlled over the next few years pending completion of the Regional Comprehensive Plan. Possibilities for implementation of the Policy range from reliance on persuasion alone to strict enforcement capitalizing on the strength in joint action by all jurisdictions.

The Interim Regional Development Policy offers the first major opportunity for cities and counties to capitalize on the strength available through joint action to achieve their objectives. It offers the potential strength of mutually reinforcing decisions and activities, which also could include school districts, other special districts, the Portland Metropolitan Area Local Boundary Commission, the two state highway departments, other state and federal agencies, the FHA, the VA, etc., to say nothing of private lending institutions and others.

Enforcement of the Interim Regional Development Policy could be achieved through two steps. The first step would be formal adoption of the Policy by each city and county. In the case of a proposed zone change, and possibly even a subdivision plat in conflict with the Interim Development Policy, the burden

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\* Held during the first two weeks of September.

of proof would be on the applicant to show "(1) there is a public need for a change of the kind in question, and (2) that need will be best served by changing the classification of the particular piece of property in question as compared with other available property." (Fasano versus Washington County, Supreme Court of the State of Oregon, March 1973).

The second step in the enforcement of the Interim Regional Development Policy would be the signing of formal intergovernmental agreements or a joint resolution specifying (1) the conditions under which developments, zone changes, subdivisions, public utilities, street improvements and other projects will be approved, within the priority areas, and outside the priority areas; (2) under what conditions and procedures the boundaries of the priority areas themselves can be modified; (3) how special hardship cases and other problems are to be resolved; and (4) the role of CRAG in the process.

#### CRITERIA AND PROCEDURES UNDER CONSIDERATION

##### A. Criteria and Procedures Applicable to All Priority Areas

1. It is recommended that any proposals for large development be submitted to CRAG for review to determine if any adverse impact would occur relative to the intent of the Interim Development Policy or regional plan alternatives under consideration; also, the adopted criteria could be "excepted" if it was determined that an emergency condition existed, i.e. a condition relating to the preservation of the health and/or safety of the people in the area in which the condition exists or in the region.
2. Growth trends and market demands should be monitored by CRAG and local agencies working together. The nature and extent of any cases of hardship and inequity due to

the Interim Regional Development Policy should be determined. Measures to meet these problems and probable costs should also be studied. For these purposes the holding of periodic public meetings should be considered to hear the impact of the Policy on landowners, renters, farmers, etc.. This procedure will facilitate needed adjustments in the Policy and also provide important information for drawing up an implementation program for the final regional comprehensive plan.

3. The effects of the criteria and procedures applicable to each individual priority area should be monitored and evaluated for workability on a continuing bases. This is proposed as an interim CRAG project.
4. Re-evaluate local zoning and subdivision regulations, capital improvement programs and utility rate structures to assure that they support the Interim Regional Development Policy.

B. Criteria for Priority Areas I and II.

Areas sewered or developed:

- a) Current development standards apply.
- b) All jurisdictions to promote development in these areas.
- c) Urban zoning is required. Local staffs should aid in processing or initiate zone changes if deemed desirable in carrying out the policy.
- d) State code cesspools or approved septic tank allowed, however, jurisdiction should promote hookup to public sewer.
- e) Public water supply required.

C. Criteria for Priority Area III.

Areas of transition -- sewers are programmed but not built, or areas are inside existing city limits:

- a) Current development standards apply.
- b) Criteria for areas I & II apply for all projects under way at time policy is enacted.
- c) Allow the extension of sewer and water systems only to the extent necessary to alleviate health problems or other emergencies, and in such manner that additional development will not be encouraged.
- d) Allow annexations and new incorporations only when it is shown that the intent of the Interim Development Policy will be supported and that the new regional goals and policies are not violated.
- e) New subdivisions or other development would be required to meet standards of areas one and two and to submit an impact analysis covering the following areas:

The municipality or applicant for an amendment to the Interim Development Policy Map shall bear the burden of proof and shall show:

- 1) The amendment is in accord with the adopted regional interim policy
- 2) The amendment is in the public interest.
  - a) The public's interest shall be viewed from environmental and economic perspectives and the positive and negative impacts shall be declared.
  - b) The applicant shall submit a cost-benefit analysis as related



to the extension and provision of services.

- c) The amendment will not adversely impact the existing services or place a burden on the residents of one area when an amendment to another area would have less of an impact.
- 3) There is a public need for this development at this time.
- 4) The land is best suited for this proposal as opposed to other lands within the higher priority areas.

D. Criteria for Priority Area IV.

Areas that are unsewered but public water available -- current zoning permits development:

- a) Place an interim freeze on all annexations and new incorporations except in minor cases necessary to alleviate existing health or water supply problems or other emergencies.
- b) No new subdivisions with lot size less than five acres per dwelling unit.
- c) Other new construction shall require a minimum lot size of 5 acres except on lots on record at the time this policy is enacted.
- d) Sewage disposal systems shall be approved by the appropriate jurisdiction.
- e) Development is to be served by a public water system.

E. Criteria for Priority Area V.

Areas that are unsewered -- public water unavailable; however, land is zoned for urban use -- low priority for development:

- a) No new subdivisions to be approved.

- b) New construction shall require a minimum of 20 acres per dwelling unit, except on lots or parcels existing at time of approval of this development policy.
- c) Sewage disposal systems to be approved by appropriate jurisdiction, i.e., city or county sanitarian.
- d) Water supply to be approved by appropriate jurisdiction, i.e., city or county staff.

F. Criteria for Priority Area VI.

Land is unsewered -- no public water -- zoned for rural uses or unzoned:

- a) No new construction except on lots or parcels of record existing at the time of approval of development policy. Minor land partitioning to be frozen.
- b) No new subdivisions would be accepted.
- c) No new zone changes for urban uses.
- d) No new access or public services would be provided.
- e) An impact analysis would be required for any conditional or community service use proposals.



IT IS OBVIOUS THAT THERE IS A LIMIT OR ENVIRONMENTAL CAPACITY TO THE AMOUNT OF DEVELOPMENT THAT COULD OCCUR AND TO THE NUMBER OF PEOPLE THAT COULD USE THE LAND AND STILL RETAIN THE NATURAL ENVIRONMENT AND LIVING QUALITIES OF THE MOUNTAIN.

FOLLOWING THE ESTABLISHMENT OF AN ENVIRONMENTAL CAPACITY, CONTROLS SHOULD BE ESTABLISHED TO MAINTAIN LIMITS ON THE TOTAL VISITOR POPULATION AND THE NUMBER OF HOUSING UNITS.

- PRELIMINARY PLAN, MT. HOOD COMMUNITY

SUBSTITUTE GROWTH IN QUALITY  
FOR GROWTH IN NUMBERS?

## 2.

### Population Growth Guidelines



WASHINGTON (AP) — Reporting under government contract, a scientific panel Wednesday urged that the nation begin limiting its population and its use of resources.

# Limits recommended for population, resource consumption

THE OREGONIAN, THURSDAY, OCTOBER 5, 1972

It said the nation, already heavily dependent on foreign raw materials, must shift its industrial base to materials domestically plentiful or face a disastrous minerals crisis within decades.

The panel, drawn from the National Research Council of the National Academy of Sciences, said "it is clear that the difficulties imposed by growing U.S. and world populations pervade all other resource issues."

April "nowhere alludes to a view analysis or restraint of demand." But the panel, drawn from the National Research Council of the National Academy of Sciences, said "it is clear that the difficulties imposed by growing U.S. and world populations pervade all other resource issues."

no effective national or international materials policy... that demand population... impact and environment.

U.S. scientific panel... of the "Club of Rome" thrust... both published last January... of the Club of Rome, a group... and international scientists... the collapse of modern... within a society, perhaps... consumption growth and... within the next few decades... The U.S. National Commission on Materials Policy was appointed in 1971 with the mission of recommending a national materials policy to the President and Congress by June 30, 1972.

The commission issued a interim report identifying at least 36 issues in the area of materials supply, problems, but it noted the list might be incomplete and it contrasted with the National Research Council for another study of said that study, now published support there was not... view in the panel for the... alone will solve the... big problems," the forecast.

It said appropriate government incentives and controls should be applied to increase production and control population growth to meet same time growth, but at the only in the long run to a no-growth stability.

## Is America Saying No to Growth?

Just a few years ago, expansion was the goal of most communities. Now the trend is being reversed, with far-reaching implications for all of us

**A**N ATTITUDE showing up increasingly in many parts of the nation may signal big changes in the way Americans live in the future. The attitude: a strong, often relentless opposition to any kind of growth—whether it be new houses, new industry or even new people.\* Says an official of an East Coast firm that develops major shopping centers and new communities, "We see signs of this no-growth attitude nearly everywhere."

In California the Association of growth by 1980 at 5.5 million (about 1 million more than at present). Los Angeles closed a New York City office opened seven years ago to woo businesses west. There is barely enough power for industry already in that area.

In Maryland, Howard County officials rejected plans for a huge amusement complex. It was estimated that the center would draw 6.2 million visitors in its first year and by 1980...

## Putting a Speed Limit on Growth

By William C. McGivern

Impact zoning, cluster housing, green-area planning, density zoning—all are recently devised methods of handling development to minimize its ill effects on the environment. Similar in goals but different in form is a development control program, based on a version of the greenbelt town, recently put into effect in Petaluma, Calif., by William C. McGivern, Petaluma's planning director, and the firm of Williams and Mocine, planning consultants.

Petaluma's problem, shared with many other small cities located on the urban fringes today, was a sudden spurt of growth that caught the city unprepared after years of easygoing, small-town life. In Petaluma, that sudden spurt threatened to outdistance the city's ability to provide municipal services and generated great local concern on that account.

first expressions of concern over the rapid growth rate. Petaluma, though, had developed a thriving shipping and commercial core area at a young age and had supported itself with a poultry-producing industry, among other things.

For that reason, the city's long-time residents had no desire to see vast residential tracts encroach on industrial or agricultural land and cause total assessed valuation to stagnate. Instead, the city demonstrated its willingness to acquire more industry by annexing in the late 1960s a large tract of land along U.S. 101, liberally lacing it with sewer and water connections and zoning it for industry.

**Problems of Urban Sprawl**  
Another concern of the city was, simply, urban sprawl. By 1971...

## PROBLEMS AND ISSUES

Part II of this report discusses prospects for continuing population growth in the CRAG region, the case for slowing population growth, the inevitability of continuing growth, the environmental capacity of the CRAG region, the environmental impact of a doubling of population, and problems and issues surrounding all of these topics. A problem underlying the entire discussion is that the region's environmental capacity and, in many ways, the environmental impact of population growth, are highly elusive. They are elusive in part because there is a practically infinite variety and range of factors involved, and knowledge is limited. But they are also elusive because ultimately they come down to matters of personal values and choice of life style.

It is clear that there is a limit to the population which our region can absorb without breaking down the quality of life we now know, although we cannot yet demonstrate precisely where that limit might be, or what the overall consequences of exceeding the limit might be. It also is clear that stable or slow growth conditions will lessen if not eliminate the windfall profits of boom periods, but it may be that we can no longer afford the windfall profits of past years as long as we adhere to our new goals.

It probably has always been true that slow growth can be accommodated with fewer dislocation problems and social stresses than can rapid growth. What is new is the realization that we may be approaching the region's environmental capacity in the foreseeable future, and the appreciation of how long it would take to stabilize the population even if we were to start immediately. The adoption of growth guidelines oriented toward slowing our rate of growth, while attempting to determine that limit

that our area's resources can accommodate, will keep open the widest possible range of options. The stakes are high.

The primary issue to be resolved is not whether it would be possible to slow or guide the region's rate of growth, but whether we have reached any consensus on that goal, and whether we want to look for morally and legally acceptable measures to attempt it, measures which will not violate basic human rights and freedoms. Our choices are between the controls and costs such measures would involve today and the price that will be paid if rapid population growth and overuse of resources makes the life styles that are valued today unattractive or impossible.

The issue is whether we want to pay the price of protecting and conserving what we now have or whether we can assume that technology will continue to provide desirable substitutes and thus overcome the apparent natural limits to growth.

A further issue is that we do not have a good handle on the impact of slow growth or a stabilized population on the region's economy, employment opportunities, or low income and minority groups. In a stable regional economy, what substitutes for the traditional growth-oriented industries? What is the cost of limiting growth? Who benefits? Who pays? What adjustments can we make so that the transition will be equitable for everyone?

If we attempt to discourage in-migration it will be said that we are selfishly discriminating against non-residents. But we end up discriminating either way, since the alternative is to discriminate against the immediate and long-term interests of present residents and their children.

The alternative is one of sameness across the country, rather than diversity and freedom for local action. We run the risk of becoming as inundated with the problems of excessive growth as have parts of California and other areas. Creative actions on our part can impel other areas to move more quickly to face realistically our national growth problem as well as their own growth problems, whether existing or prospective.

### REGIONAL GOALS

The CRAG Executive Board has responded to these problems and issues through formal adoption of a regional growth goal and related policies, included with its overall statement adopted on May 18, 1973. The complete text of the statement can be found in Planning in the CRAG Region: An Appraisal and New Direction, beginning on page 151. The immediately relevant portions of the statement are as follows:

#### ● REGIONAL GROWTH GOAL

Achieve a balance between population growth, industrialization, and regional resources that permits sustained yield of renewable resources, conservation of non-renewable resources, and an enhanced quality of life both in a physical and social sense.

... seek to determine the level of population and industrialization which can be supported without depleting the area's natural resources or lessening opportunities to improve livability and quality of life.

In support of this long-term regional policy ... all decisions relating to growth and development will be made with the basic aim of KEEPING OUR OPTIONS OPEN .....



## A CATALOG OF POSSIBLE ACTIONS

Measures for working toward CRAG's regional growth goal and keeping our options open cover a wide spectrum. They range from highly controversial and radical measures to simply refraining from any further promotional activities outside the region. They must be of national (and world-wide) scope, but they must also start at the local and regional level. No one measure by itself will do the job. What is needed is a bundle of measures, with each action serving to reinforce the others, if a policy of guiding growth is to be carried out.

Based on the adopted goals and policies, some possible measures for limiting growth are described below as a starting place for discussion. These and other measures need to be examined for their political, moral, and legal acceptability. Out of the discussion might then emerge a realistic action program.

1. Re-evaluate governmental activities of all kinds from the standpoint of their affect on growth rates in the CRAG region. Re-align policies and activities in a manner to raise the attractiveness of the region for present residents and to absorb on a more rational basis those who migrate from outside.

2. Actively support and/or initiate measures at state and federal levels, such as public education measures, research on the capability of land and other resources to support population, research on the relationship between population densities and social problems, and on tax and other governmental incentives for limiting growth.

3. Actively support and/or initiate measures at the local and regional levels similar to the above. For example, use public information programs to heighten public awareness of the consequences of rapid and/or prolonged growth, of prospective shortages of resources in the CRAG region, and of proposals to overcome such problems.

4. In conjunction with the region's industrial community, investigate the possibility of developing a slow growth strategy in the industrial sector through land use restrictions, tax incentives and penalties, and variable charges for public services in a manner that would tend to discourage types of enterprises which stimulate in-migration of employees and encourage firms which rely on the existing labor force. In order to reduce the need for employers to hire workers from outside the region, consider promoting a manpower training, development and placement program designed to improve local skills, put the locally unemployed to work, and provide information about existing and prospective job opportunities both inside and outside the region.

5. Examine the alternative settlement patterns and population densities which could accommodate the adopted design population of two million people in the CRAG region, as presented in this report. Determine whether the alternative regional land use concepts (see pages 72 to 81), the proposed regional zones (see pages 117 to 122), development program for urban zones (pages 127 to 157), and resource management and development program for non-urban zones (pages 159 to 176):

- a) would achieve the desired balance between population, industrialization and resources and hence an optimum quality of life;
  - b) could be modified to accommodate more people;
- OR

- c) need to be modified to put an earlier limit on growth due to overbalancing adverse environmental impacts of growth.

6. Use conventional city and county land use zoning regulations to enforce planned ceilings on residential densities. Use subdivision regulations, preservation of permanent public open space, preservation of farm land and forests, withholding of public access and services from undeveloped areas, utility rate structures, and other existing governmental policies and activities in support of the residential densities planned. Establish a quota on the number of new residential units permitted each year, distributing the quota according to densities reached in relation to densities established by the regional comprehensive plan. Require a predetermined percentage of lower-income housing units in each area. Coordinate the staging of development by correlating residential quotas with a regional capital improvements program.

7. Identify all public costs associated with new development and assess those costs against such development, in order to have a closer correlation between growth and the cost impact on the region. There is precedent for such assessments in subdivision improvement requirements, park and school site dedication requirements, improvement fees and other practices. Set user rates and charges to reflect actual costs.

8. "Fine tune" all slow growth policies and activities so as not to inhibit the construction of needed low and moderate income housing; on the positive side, provide public policy incentives for such construction.

9. In lieu of adoption of a slow growth policy or a finite population limit for the CRAG area, continue to orient planning

to the goal of accommodating whatever population might be in store. Protect quality of life in the region through (a) encouragement of good urban design practices; (b) maintenance and improvement of present levels of service; (c) programs specially tailored to protect individually designated areas of environmental concern, such as rivers, lakes, viewpoints, historic sites and other areas of unique value; and (d) continued acquisition of needed parks and other permanent public open spaces.

### RECOMMENDATIONS

It is recommended that the CRAG community consider the positive and negative impacts of adopting a regional growth policy. Included should be impacts on (1) the economy, (2) social and governmental costs, (3) unique natural features and other aspects of the environment, and (4) any other factors of importance to quality of life in the region. In the light of such impacts the overall desirability of a program to keep population within design limits determined for the regional environment should be considered. City, county and other governmental activities should be re-evaluated from the standpoint of how these activities tend to encourage or to discourage growth in various locations. New methods should be considered for guiding population growth into density patterns required by the regional comprehensive plan.





3.

## Establishment of Regional Zones and Revolving Fund

THE OPPOSITE OF URBAN SPRAWL  
IS A PRE-PLANNED PATTERN OF  
URBAN SETTLEMENT AND RURAL  
LAND USE

" THE TOOLS OF THE REVOLUTION ARE NEW LAWS TAKING A WIDE VARIETY OF FORMS BUT EACH SHARING A COMMON THEME -- THE NEED TO PROVIDE SOME DEGREE OF STATE OR REGIONAL PARTICIPATION IN THE MAJOR DECISIONS THAT AFFECT THE USE OF OUR INCREASINGLY LIMITED SUPPLY OF LAND.

" AS A POLITICAL MATTER PROBABLY THE MOST FEASIBLE METHOD OF MOVING TOWARD A WELL-PLANNED SYSTEM OF... LAND USE REGULATION IS TO BEGIN WITH A REGULATORY SYSTEM THAT CONCENTRATES ON A FEW GOALS THAT ARE GENERALLY PERCEIVED AS IMPORTANT, AND THEN TO GRADUALLY EXPAND THE SYSTEM BY ADDING MORE COMPREHENSIVE PLANNING ELEMENTS..."

--THE QUIET REVOLUTION IN LAND USE CONTROL

## PROBLEMS AND ISSUES

Zoning regulations consist of a series of zones designated on a map together with restrictions as to land uses permitted, development standards and procedures. Such regulations long have been employed by local government. They originated in New York City in 1916 for the purpose of segregating and thereby protecting incompatible land uses from each other. Since that time additional expectations have been placed on zoning, in particular that it will effectively control the location and timing of new development and thereby assure implementation of the jurisdiction's long range land use plan.

Realization of any of the settlement pattern concepts presented in Part III of this report, and the urban and rural programs proposed in the following sections, will require a wide range of implementing mechanisms. It would seem that city and county zoning regulations would rank near the top of the list of possibilities.

It is a matter of increasing debate, however, whether conventional local zoning regulations have achieved their initial purpose of protecting incompatible land uses from each other, let alone whether they have had off-setting negative impacts, or whether they have ever been effective in helping implement a long-range land use plan. On the first point, a recent study of zoning, based on an analysis of Houston which has never adopted a municipal zoning code, concludes that zoning has actually accomplished little that would not have occurred without it. On the second point, the author found that zoning has acted to increase housing costs, limit housing production, and deny to many the opportunity for better housing. (See Land Use Without Zoning, Bernard H. Siegan, D.C. Heath & Co., 1972.)



On the question of whether city and county zoning restrictions have demonstrated effectiveness in implementing land use plans, urban sprawl around the country and in the CRAG region in particular gives evidence that the location and timing of urban expansion into rural areas has not been controlled by local zoning.

Zoning has been described as a thermometer which measures the amount of "economic heat" on a piece of property at any given time. The traditional pattern has been that as economic pressures for urban development push into outlying areas, zoning sooner or later is changed to accommodate or reflect it.

A comparison of the current composite zoning pattern in the region with patterns recorded by the Metropolitan Planning Commission in 1960 and by CRAG in 1967 shows a continuing outward encroachment of urban type zones on farm and agricultural zones and unzoned areas alike. In some parts of the CRAG region where development pressures have not yet come strongly into evidence, zoning still is quite un-restrictive or even non-existent. A large part of Clark County is in an "FX Zone" which permits any land use except heavy industry. Most of Columbia County and outlying parts of Clackamas County are unzoned. (See map, page 218.) Far from guiding the location and timing of urban expansion into rural areas, zoning generally has followed it. This conclusion is not entirely surprising, since the results of the workings of the land market provide the information revealing what urban land uses are needed and when, i.e. the information on which to base the drawing of precise zone boundaries for different types of land uses.

Finally, zoning has been as likely to promote urban sprawl as to contain it. Developers typically search for low-cost sites with the expectation of obtaining zone changes in preference

to sites which are already zoned for the kinds of projects they have in mind and hence which are likely to be more costly. This is one of the explanations for "leap-frog" urban sprawl.

It can be argued that local zoning hasn't worked to prevent urban sprawl simply because it hasn't been enforced rigorously enough, because zone changes have been too easy to obtain. New court cases, such as the landmark Fasano case in Oregon, now are tending to make zone changes more difficult. Perhaps with the imposition of new more-restrictive farm zones, and with the strong backing of the courts as in the Fasano case, local zoning can be made to work.

There is no question but that continued local zoning control has highly desirable aspects. CRAG adoption of the goal of promoting community and neighborhood identification, belonging and responsibility attests the importance of local control in general. Unfortunately, it appears that hopes for the success of zoning applied only at the local level have been over-optimistic.

Urban development pressures and the urban land market are region-wide in scope. A local jurisdiction by itself is not required to look at the total picture. Even if it does see the total picture it may not be able by itself, to withstand and channel the strong economic pressures which the market can exert. Nor is it in the best position to integrate its decisions with related matters of regional scope, such as the provision or deletion of a new freeway on the regional plan.

An additional problem with conventional zoning as a tool for implementing the comprehensive plan is that it cannot be used as a substitute for acquiring public open space which needs to be permanently preserved. To do so would be confiscatory

of private property without due compensation and, indeed, this is one of the arguments most commonly used for the purpose of justifying a zone change to permit urban development. How then can zoning be used to help realize regional goals such as the following?

### REGIONAL GOALS

The goals statement adopted by the CRAG Executive Board on May 18, 1973 sets a general direction for guiding growth in the region. The establishment of regional zones and a revolving fund as outlined on the following pages is a primary component of the program designed to meet these goals. Pertinent portions of the statement are as follows:

#### ● URBAN - RURAL DIFFERENTIATION GOAL

Achieve a pronounced and recognizable distinction between urban and rural settlement.

... insure that urban growth and development occurs in those places designated for urban settlement by the regional comprehensive plan, and ... preserve all other areas as rural and/or relatively uninhabited.

#### ● OPEN SPACE

Protect natural areas, watersheds, reservoir sites, forest lands, flood plains, exceptionally rough terrain, and areas of scenic, historic or other interest that have recreation or open space value.

Search for ways in addition to outright acquisition to preserve water courses, flood plains, agricultural and other special open lands...

● AGRICULTURE & FORESTRY

Capitalize on agricultural and forest lands ... assure diversity in job opportunities, economic base, life styles, environmental conditions and recreation opportunities ... preserve agricultural and forest resources in order to keep from foreclosing future options in a time of uncertainty and rapid change.

REGIONAL ZONING PROPOSED TO MEET REGIONAL GOALS

Regional-level zoning is a possible means for meeting CRAG's adopted goals. It would be accomplished, not by transferring local zoning administration to the regional level, but by obtaining new state legislation to enable dividing the region into four regional zones and enforcing land use regulations appropriate to the basic purpose of each:

- URBAN
- RURAL RESIDENTIAL
- AGRICULTURAL
- CONSERVATION

These zones would be defined on the basis of the regional land use plan which emerges from the settlement pattern concepts presented in Part III of this report. They would provide an anti-sprawl framework within which the other regional-level programs described in this report could be carried out, and within which detailed planning by local governments and agencies at state and federal levels could be accomplished. City planning and zoning, for example, would remain the responsibility of the cities, within the broad regional framework. Forest management would remain the responsibility of state and Federal agencies. But the zones in which the different agencies operate would be stabilized.



Planning and the provision of all services would be focused on the basic purpose of each regional zone. The kinds of land use conflicts and service problems which now occur, such as in the ever-changing urban-suburban-exurban-rural transition zone, would be minimized. Over time these unstable transition zones would be largely eliminated. Efficiency and quality of all services should then be at an optimum level.

A noteworthy precedent for regional zoning can be found in the State of Hawaii. That state has been divided into four "districts" since 1964, based on its Land Use Law passed in 1961.

#### DRAWING ZONE BOUNDARIES

The precise location of the boundaries of the four regional zones will require selection of a regional land use concept, completion of the regional comprehensive plan, and additional detailed technical studies, hearings, and political-level discussion. It is critically important at this stage to keep from bogging down in the specifics of boundary determination. Agreement on the objectives and concept of regional zoning is needed first. It is the intent of this report to provide a feeling for the overall implications of the concept and the general locations of the zones which might eventually emerge.

#### REGIONAL REVOLVING FUND PROPOSED TO ACCOMPANY REGIONAL ZONING

Regional zoning by itself would be relatively ineffective when measured against the total scope of the urban sprawl problem. By itself it would suffer most if not all of the weaknesses of conventional local zoning. The heart of the problem is that zoning is a technique under the police power, so it must

surmount the objection that it involves a "taking" of property without just compensation.

Preservation of the non-urban zones from urban encroachment amounts to a substantial narrowing of individual property owners' expectations and opportunities (or property "rights") under our system as it has been operating. Zoning as a police power technique thus is exposed to constant attack on its constitutionality as applied. "The very possibility of such attack could itself inhibit proper planning of open space. Following each successful attack on the regulation as applied to particular property, the plan must either be abandoned as to such property or reinstated through condemnation at values inflated by the passage of time and the unspoiled character of surrounding (restricted) property." (Krasnowiecki and Paul, quoted in Combining Public Regulation and Public Compensation to Guide Urban Growth, Orval Etter, Mid-Wilamette Valley Council of Governments, Salem, Ore., 1972)

It can be concluded from this analysis that regional zoning as a means of guiding growth in the CRAG region must be supplemented by additional measures involving acquisition of property rights, fee title in some cases and limited property interests (such as development rights or access rights) in others. A further measure proposed, which combines aspects of public regulation and public compensation, is known as "compensable regulations." This measure is discussed in depth by Orval Etter in the publication just cited. One type of compensable regulation, the "official open-space map ordinance," is proposed in the CRAG park and open space plan (The Urban Outdoors, 1971).

Other techniques needed to supplement zoning as a means of guiding regional growth include the ability to assemble land for rural as well as urban purposes, to sell land again with restrictions, and to lease land. All of these techniques require public dollars.

Revision of the property tax system is point six of the proposed Six-Point Program, discussed beginning on page 177. The thrust of this proposal is the "untaxing" of improvements and introduction of site value taxation. One effect of site value taxation would be to create a scarcity of vacant land in the urban area, and thereby necessitate much more extensive planning and money for land acquisition for public parks, open space and sites for public facilities well in advance of actual need.

Compensable regulations, official maps, sale-back of land with restrictions, lease-back of land, and advance acquisition of sites for public uses will complement zoning as a means of guiding urban growth only if the public is able to respond quickly with acquisition funds when a landowner wants to develop or sell his property for development and police power recourses have been exhausted. The solution to this problem is creation of a regional revolving fund along the lines originally proposed by CRAG in its park and open space plan referred to above.

The revolving fund would be for use at regional and local levels to acquire property rights, purchase land, aid in the development of public facilities and so on, as designated on the regional comprehensive plan. The fund could be used to guide growth through the techniques of land purchase with lease-back and purchase with sale-back with restrictions.

There are numerous possible sources for a regional revolving fund. The most obvious, of course, would be a small property tax levy, (perhaps one dollar per thousand dollars of assessed valuation), a bond issue, or possibly a real estate capital gains tax designed to tap the substantial personal and corporate income derived from the increased value of land attributable not to improvements made by the owner but rather to population increases and to public investments in such facilities as highways, sewers,

water lines, reservoirs, parks and schools. Some of the increased real estate value brought about by the public, in other words, could be returned to the public to create the needed regional revolving fund.

Putting the revolving fund at the regional level would provide the greatest flexibility for local use when and where needed. At the same time it would assure the realization of regional priorities and region-wide goals for guiding growth by supporting the proposed regional zoning.

#### RECOMMENDATIONS

It is recommended that the CRAG community consider designating four regional-level zones in the CRAG area, Urban, Rural-Residential, Agricultural, and Conservation. This proposal provides the foundation for points four, five and six of the Six-Point program outlined below. The intent would be (1) to permit land uses and densities appropriate to each zone and (2) to use existing city and county land use zoning authority, provision of public services, utility rate structures, and other existing governmental policies and activities to further the basic purposes of each zone in accordance with the regional comprehensive plan. It is further recommended that the CRAG community consider creation of a revolving fund at the regional level for use by CRAG and local governments to implement the plan as it pertains to each zone, by facilitating purchase of development rights, assembly of land for urban or rural purposes (with or without sale or lease-back), reservation of needed public open space or sites for public facilities, and other possible uses such as loans or grants for water systems, sewerage and other public facilities.





## 4. Development Program for Urban Zones

# Portland Area Housing Costs Run Wild

By JAMES LONG  
Journal Staff Writer

The cost of a single-family home is outrunning the average family's ability to pay. According to a statistic derived from the federal cen-

sus and FHA guidelines, 93 per cent of Oregon families would have qualified financially for the cheapest new house on the Portland area market in 1969. Today, it is estimated that

the figure is down to 60 per cent.

What is happening? A Journal study of new housing costs in metropolitan Portland turned up a complex picture of runaway

lumber inflation, rising land costs — and, in some localities, a huge jump in service fees.

If you build a new house in Hillsboro after April 15, for instance, you will be

charged \$1,000 just to be hooked up to that city's water system. For a detailed look at how house construction prices have leaped in recent years please turn to Page 5, Section 1.

## Competing with suburbia

**Exodus:** When Blanchard came to Portland the student enrollment was 77,684. Next year it may drop below 66,000. Where have all the people gone?

A lot of them have gone to suburbia. Indeed, half of the 20 top administrators of the school district now live outside the school district.

For schools, the flight to suburbia has been a mixed blessing. The district lost some of its most stable families, and some of its most capable students. On the other hand, it gained space in the classrooms and some relief for a tight budget.

"I've heard it said that 80 per cent of the directors of the Portland Chamber of Commerce don't live in Portland," added Blanchard. "... But I don't think it always has to be that way."

Blanchard believes restoring health to city schools is essential to stemming the exodus, and the key to that, he believes, is the high schools.

"While I respect many of the suburban education programs ... they do have a built-in disadvantage, and that is that frequently they have only one high school.

Blanchard proposes a system of specialized high schools, each open to enrollment from throughout the city. While they would offer the traditional high school subject matters, one high school would also put special emphasis on science, another on auto mechanics, and another on drama. On a small scale, administrators already have headed in that direction.

"I believe we would be well advised to abandon throughout the city the idea of the neighborhood high school, because I think that the only way we can complete successfully at the high school level with our suburban systems is by providing the kind of quality that is possible with diversity."

## Local planning roles approved by commission

The Portland Planning Commission Monday night approved, with modifications, staff recommendations on task force proposals for district planning organizations.

The organizations are bodies of authority included in a new structure being developed for over-all city planning.

The commission supported a two-tiered representation structure, which will include the district organizations consisting of representatives of neighborhood planning organizations. A third tier, which would have included a council of districts, was opposed as redundant.

Commissioners reaffirmed their March 26 approval of granting the planning organizations veto power over city proposals that do not meet district or neighborhood approval.

Hiring and firing of coordinators, the commission voter, will be two-way. The City Council will not be able to hire a district coordinator without the approval of the planning organization and vice versa.

In the planning concept, coordinators are viewed as paid staff members who will help districts draw up beneficial planning developments.

## LAND USE & ENVIRONMENTAL PROBLEMS & ISSUES

Part III of this report describes the broad regional problems and issues summed up in the terms "urban sprawl" and "leap-frog" development -- how sprawl is wasteful of land, means a "throw-away inner city," and results in high costs for public services. The issue of urban density is discussed, and alternative settlement patterns proposed. In the immediately preceeding section, regional zoning is proposed as the third point in our Six-Point Program to eliminate sprawl and a key to implementation of a regional land use plan. The purpose of this section is to focus on a development program for the urban zones to be established by the regional zoning, followed by a complementary program for the non-urban zones.

Urban sprawl is low-density living. Homes are interspersed with open spaces. A person looking for a site for a new home has the widest range of possibilities open to him since he can choose from anywhere in the region. Yet even though limitations on the supply of possible housing sites are minimum, land costs are high. Furthermore, housing is in short supply, particularly low and middle income housing, as has been extensively documented by CRAG studies.

We have an additional urban problem, vividly portrayed by an observer of the present-day metropolitan scene:

It is practically impossible for all but the very wealthiest to achieve a fully satisfactory, big-city, urbane style of life. Those who prefer the stimulous and excitement of dense modes of living, highly diverse neighbors, a very wide range of cultural, recreational, shopping, and eating facilities nearby, and all the rest of it, must pay a fantastically high price not only in actual living costs but

in inconvenience, personal insecurity, endless time losses in traffic congestion, and an unbelievable amount of personal irritation in general. The Georgetown and Greenwich Villages of America are not only exceedingly rare but they soon get priced out of the market for most of those for whom this is the best setting to realize their preferred life style -- the young persons on their own, the young marrieds and the retirees, the deviants, the artistic individuals. Big-city living in general has become a continuing test of survival capacity, rather than the payoff of generations of worldwide cultural achievement that good urban living should be.

In the dormitory suburbs -- a natural habitat for couples raising young children -- the environment is probably as conducive to a preferred life style as anything so far created in our modern urbanism and helps to explain their strong appeal to such a wide spectrum of families. But with very few exceptions, they tend to be urbanistically bland and culturally deprived...

If the basic metropolitan structure does not provide a really adequate setting for the playing out of even the most common life-style preferences, the situation is even less satisfactory for the newly evolving life-style variations ... more consumer-residential-leisure oriented than producer oriented. (Harvey Perloff, "Life Styles and Environment" in Planning, The ASPO Magazine, June 1973)

Housing supply, urban conflict, congestion and pollution, and suburban blandness are existing problems which have the potential of becoming much more serious in the CRAG area when we pursue

the goal of eliminating urban sprawl, unless we build effective countermeasures into our program. For example, the infilling of the open spaces has the potential of increasing not only the congestion but also the blandness, unless adequate public open spaces are preserved in the process -- small plazas or parks, neighborhood parks, river-front greenways, unique areas, etc. Taking another example, restricting development outside the urban zone will have the effect of decreasing the supply of land for housing and hence increase the cost of the remaining supply designated (to say nothing of the cost of land needed for public facilities such as parks) so countermeasures again will be needed.

The nature of such countermeasures is far less obvious, however, than in the urban open space example. They might run the gamut from a guaranteed minimum income or housing subsidies to the use of the site value tax outlined under point six of the proposed Six-Point Program. More research is clearly needed.

To opt for eliminating urban sprawl means to opt for higher overall urban densities, especially if no limit is put on population for the region. While increasing urban densities will also increase opportunities for a diversity of urbane life styles, and help to protect our non-urban resources, it will also be increasing the potential severity of urban problems and heightening the necessity for top quality planning at the site design level, at every level of government, and in social planning as well.

#### THE ISSUE OF PROVIDING WORKPLACES CLOSE TO HOME

The issue of quality of life and the size, density and identity of individual urban communities, and the related issues raised by the decline of population in some of the older parts of the



City of Portland, were discussed in Planning in the CRAG Region, An Appraisal and New Direction (see especially pages 32, 42-45 and 110-117). Another issue discussed was the success of the automobile versus the urban sprawl the automobile has perpetuated as related to quality of life (pages 118-119).

A frequent response to these kinds of issues comes in the form of a proposal to strengthen the identity of individual communities and reduce home to work travel times (and thereby reduce pollution and the drain on energy resources) by planning for the dispersal of jobs in proximity to each community. The thought of working close to where you live, and even walking or bicycling to work, is an attractive one. Unfortunately, this proposal raises more issues from a regional standpoint than it resolves. First, it tends to conflict with the objective of strengthening downtown Portland as the region's retail, financial and cultural center. Second, it conflicts with the objective of strengthening mass transit and decreasing our dependence on the automobile, since the feasibility of mass transit depends to a great extent upon centralization of people-attracting places, e.g. employment and shopping centers. Third, a review of trends between 1960 and 1970 casts strong doubt that a policy of merely dispersing employment centers alone would actually result in more people living and working in the same community.

Employment in the region actually did become significantly more dispersed between 1960 and 1970. Workers employed outside the City of Portland increased from 34% of all workers to 43%, and every county outside Portland increased its share. But the increased dispersal during this period did not result in a decrease in inter-county commuting. The data indicate the opposite.

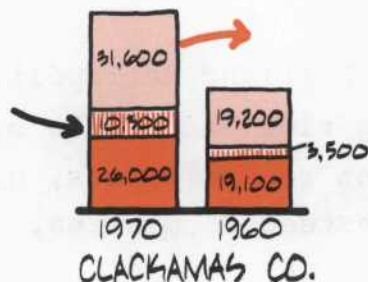
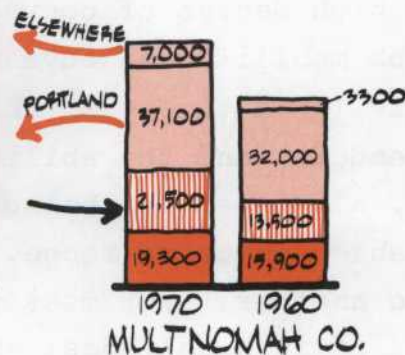
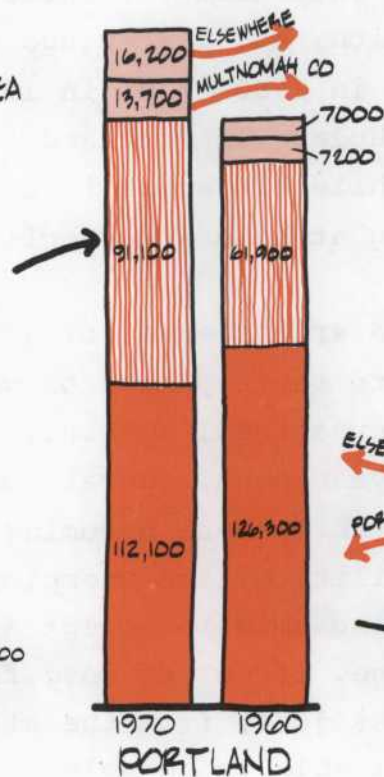
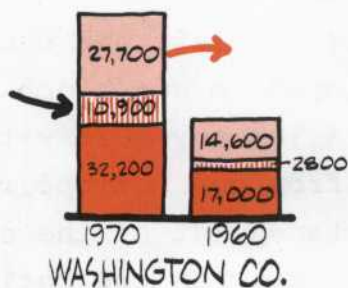
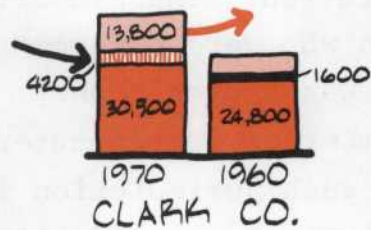
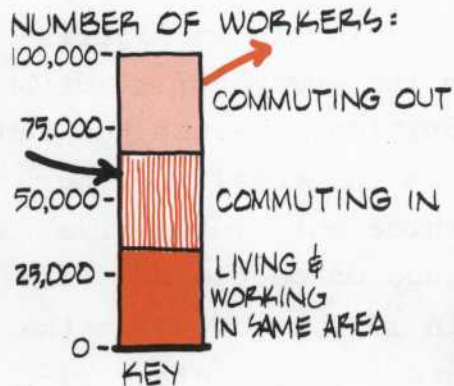
Despite the increasing number of jobs in relation to workers

living in each jurisdiction, the amount of inter-jurisdictional commuting also increased. The ratio of in-commuters to out-commuters moved from 4.3 to 1 to 3.0 to 1 for the City of Portland. At the same time it moved from 0.2 to 1 to 0.4 to 1 for Washington, Clark, Clackamas and Multnomah counties outside Portland, taken together. The ratio of in-commuters to the total working within the jurisdiction increased across the board for every jurisdiction. The proportion of workers living in each jurisdiction who were out-commuters increased for every jurisdiction except Washington County, where the proportion remained the same. The number of out-commuters in relation to the total working within each jurisdiction increased for three out of the five jurisdictions. In addition, the percentage of people who walked to work declined from 7% in 1960 to 6% in 1970, looking at the metropolitan area as a whole. In Portland the percentage remained constant at 9%, while elsewhere it dropped. The percentage of people working at home also declined.

The reason that greater dispersal of jobs has not resulted in people living closer to their places of work probably lies in our high degree of occupational specialization and in the fact that job mobility and advancement, social mobility, occupational mobility (in a time when skills are becoming obsolete and new ones needed), and the ability of the unemployed to get a job at all, all depend on being able to accept a job anywhere within reasonable commuting range, if not to move from one metropolitan area to another. For most jobs, from the standpoint of the employer, it is highly desirable to be able to draw on the entire regional labor force.

A 1960 study by the Portland Metropolitan Planning Commission found that commuting time had little or no effect on population growth in different census tracts, up to the point where commuting time began to exceed 25 minutes. Given the regional

# WORKERS CROSSING CITY OR COUNTY LINES COMPARED TO THOSE WHO WORK WHERE THEY LIVE



PLACE OF WORK & PLACE OF RESIDENCE  
 PORTLAND-VANCOUVER SMSA RESIDENTS 1960 & 1970

	Number of Workers	
	1970	1960
<u>LIVE IN PORTLAND</u>		
Work in Portland	112,100	126,300
Work elsewhere in Mult. Co.	13,700	7,200
Work outside Mult. Co.	16,200	7,000
TOTAL	142,000	140,500
Work in Portland, live elsewhere	91,100	61,900
<u>LIVE IN MULT. CO. OUTSIDE PORTLAND</u>		
Work Mult. Co. outside Portland	19,300	15,900
Work Portland	37,100	32,000
Work outside Mult. Co.	7,000	3,300
TOTAL	63,400	51,200
Work in Mult. Co. outside Portland, live elsewhere	21,500	13,500
<u>LIVE IN CLACKAMAS CO.</u>		
Work in Clackamas Co.	26,200	19,100
Work elsewhere	31,600	19,200
TOTAL	57,800	38,300
Work in Clack. Co. live elsewhere	10,300	3,500
<u>LIVE IN WASHINGTON CO.</u>		
Work in Wash. Co.	32,200	17,000
Work elsewhere	27,700	14,600
TOTAL	59,900	31,600
Work in Wash. Co. live elsewhere	10,900	2,800
<u>LIVE IN CLARK CO.</u>		
Work in Clark Co.	30,500	24,800
Work elsewhere	13,800	6,800
TOTAL	44,300	31,600
Work in Clark Co. live elsewhere	4,200	1,600

freeway network, 25 minutes provides wide latitude in finding places to live and work. It is assumed that the same pattern would occur given an adequate mass transit system. In any case, to obtain the flexibility desired for both employee and employer, regionwide freedom of movement is essential.

Therefore, the goal of promoting workplaces close to home is in direct conflict with promoting maximum choice of homes and jobs, job mobility and advancement, occupational mobility, social mobility, use of transit, central business district vitality, and choice of workers. This is a basic land use issue, since the only way to reduce total hours spent commuting in the region and to promote these latter goals is to promote maximum centralization of employment along with an acceptable and highly effective mass transit system. In terms of geographic geometry, that point requiring the smallest amount of travel in the aggregate, if everyone were to go there starting from home, would be the regional center of population located in central Portland. Centralization of employment would be unnecessary only to the extent that (1) greater aggregate travel is acceptable, (2) the transportation system effectively provides rapid access between most points in the urban area, as do today's freeways, and as tomorrow's personal rapid transit (PRT) systems might do, or (3) automation and the use of video-telephones reduce the need to assemble employees in a single place.

The idea of a metropolitan area divided into a series of self-contained human-scale communities where people live, work and form social bonds is closer to yesterday's reality than today's. In the future, job mobility, occupational mobility, social mobility, and flexibility in choice of life style probably will become increasingly important. On the other hand, commuting time and living close to work probably will decrease in importance, to the extent that long-term trends continue



toward shorter work weeks and increased spendable income.

### REGIONAL URBAN GOALS

The goals statement adopted by the CRAG Executive Board on May 18, 1973 sets the basic direction for guiding urban growth. The four broad goals from that statement -- Regional Growth Goal, Regional Settlement Goal, Urban-Rural Differentiation, and Community Identification -- are illustrated on pages 5 to 8. Portions of the first three goals have been quoted as applicable in the preceeding pages. The Community Identification Goal is a uniquely urban goal, reading as follows:

#### ● COMMUNITY IDENTIFICATION GOAL

Achieve a definition of individual physical community and neighborhood areas which will facilitate the location of amenities, foster social interaction and citizen involvement, and which will help to create and maintain feelings of community belonging and social responsibility.

The immediately preceeding discussion of the issue of providing workplaces close to home suggests that the application of the Community Identification Goal inevitably must be balanced against the pull of competing goals, such as job mobility, social mobility and variety of choice, in order to obtain the optimum mix of each. This concern is expressed in the land use section of the adopted goals statement as follows:

- Promote variety of choice and equality of opportunity; create a new and wider range of options, especially for disadvantaged and other groups which have been "locked into" limited and limiting residential,

economic, home-to-work, and recreational patterns or life styles.

The adopted goals statement also contains specific land use goals and policies under residential, commercial, industrial, open space, and public and quasi-public headings. For these, pages 162 to 172 of Planning in the CRAG Region, An Appraisal & New Direction should be consulted.

#### ALTERNATIVE URBAN LAND USE PLANS TO MEET REGIONAL GOALS

Part III of this report is concerned with the regional settlement pattern, densities of settlement, land use concepts and choices for the future from a broad regional perspective. We now turn to the question of how business, industry, homes, community service facilities and open spaces could be fitted into the lands allotted for urban use in each of the alternative land use concepts, consistent with the overall density standards agreed upon and with regional goals.

The detailing of the urban component of the three alternatives -- Concentration Concept, Dispersion Concept, and a Combination Concept -- employs the following classification system:

URBAN HIGH DENSITY - Areas where overall population densities exceed 10,000 persons per gross square mile. While principally high-rise residential in character, such areas would also include a variety of minor or non-regional-scale industrial business, community service or open space land uses.

URBAN MEDIUM DENSITY - Areas where overall population densities range between 5,000 and 10,000 persons per gross square mile. Characteristically such areas would be heavily built-up low-rise residential areas, also including minor industrial, business, community service or open space land uses.

URBAN LOW DENSITY - Areas where overall population densities range between 2,000 and 5,000 persons per gross square mile. Moderately built-up low-rise residential areas would predominate, also including minor industrial, business, community service or open space land uses.

SUB-URBAN LOW DENSITY - Areas where overall population densities range between 1,000 and 2,000 persons per gross square mile. Characterized by lightly built-up low-rise residential areas, where topography or other special conditions would tend to preclude urban densities above 2,000 persons per square mile. Some minor non-residential land uses would also be included, but not industry or business.

MAJOR COMMERCIAL CENTERS - Areas of retail, service or other business activity of sufficient magnitude to be of region-wide or inter-jurisdictional concern. Such areas are of two kinds:

Class I "Downtown" or Central Business Districts (CBD)

-consisting of 3 levels of centers that have evolved at the heart of most of the region's municipalities. They typically include a major mercantile element as well as serving as the seat of local government and offering a focus for community identity or cultural activities. In magnitude they are ranked as follows:

- a) Metropolitan - (e.g. Downtown Portland)  
- generally with a tributary urban population over 200,000.

- b) Sub-metropolitan - (e.g. Downtown Vancouver, Beaverton or Gresham)  
-generally with a tributary urban population over 20,000.
- c) Outlying - (e.g. Downtown Molalla)  
-generally with a tributary population under 10,000 and including a large rural component.

Class II Other Regional Business Districts  
-consisting of shopping centers designed and built as a unit or trade centers that have evolved gradually, each serving more than localized shopping needs. In magnitude they are ranked as follows:

- a) Major Centers Designed as a Unit -  
(e.g. Lloyd Center)  
-generally including more than one major department store and supported by a tributary urban population in excess of 100,000.
- b) Smaller Centers Designed as a Unit -  
(e.g. Eastgate)  
-generally including a variety of shops but no more than one department store and supported by a tributary urban population of at least 20,000.
- c) Other Shopping or Trade Districts -  
(e.g. Montavilla)  
-offering more than convenience shopping and supported by a tributary urban population over 20,000.

**MAJOR INDUSTRIAL LAND AND EMPLOYMENT CENTERS -**  
Industrial areas generally over 100 acres in size or concentrations of sufficient industrial employment (generally over 500) to be of region-wide or inter-jurisdictional concern.

**MAJOR COMMUNITY SERVICE FACILITIES -** Sites for community service facilities that are generally over 50 acres in size, or for facilities that serve the entire region or a multiplicity of community areas. Examples of major community service facilities include:

- Airports
- Colleges and universities
- Community colleges
- Zoos
- Major railroad stations
- Coliseums or civic centers
- Large medical school complexes

MAJOR OPEN SPACE - Areas that will remain permanently open and which are generally over 50 acres in size. Examples of major open space include:

- Parks
- Watersheds
- Game reserves
- Greenways
- Golf courses
- Cemeteries
- Public forest lands
- Commercial forest lands

RURAL RESIDENTIAL & AGRICULTURAL - Areas that are to remain at relatively low population densities, not exceeding, on the average, 160 persons per square mile. Small rural trade or service centers are identified.

#### DETAILING THE CONCENTRATION CONCEPT

The concentration sketch plan had its origin in the belief that more concentrated or compact urban development would offer significant advantages in terms of lower urban service costs for most facilities. In a word, efficiency was the underlying rationale. The design approach was governed by the following broad considerations:

- a) Urban growth would be channelled as much as possible to the central urbanized area by allocating all new urban lands to its perimeter and by increasing the proportion of urban high density areas and populations in relation to medium and low densities.



- b) Growth of the outlying cities would be concentrated in the areas within existing city boundaries or already committed fringes.
- c) In general, growth of the central urbanized area would be favored over that of outlying cities.
- d) Major community service facilities and land areas would be assumed to remain essentially unchanged from their present pattern, pending the completion of the community facilities element of the Regional Comprehensive Plan.
- e) Major open space would incorporate elements of the CRAG Open Space Plan adopted in 1971; otherwise the present pattern of major open space was assumed, pending the completion of the open space element of the Comprehensive Plan.

The resulting concentration design is mapped on page 151. The population allocation by density class is given in the table on page 157. Some highlights are as follows:

URBAN HIGH DENSITY - 12 to 13 square miles located principally near Downtown Portland and, secondarily, near the Vancouver core. Average population density of these areas would be a little over 15,000 persons per square mile.

URBAN MEDIUM DENSITY - 73 to 75 square miles located primarily in a large triangular area principally east of the Willamette River: Milwaukie-Oak Grove on the south; Rockwood area at the eastern extreme; St. Johns area at the northern point of the triangle. Secondarily, Beaverton and Vancouver would include important medium density areas; several smaller medium density areas would be located in Oregon City, Wilsonville, Mt. Sylvania area, Hillsboro, Forest Grove, and Gresham. Average population density of these areas would be around 7,800 persons per square mile.

URBAN LOW DENSITY - 220 to 225 square miles occupying the majority of the remaining areas within the urban perimeter. Average population density of these areas would be 3,800 persons per square mile.

SUB-URBAN LOW DENSITY - 32 to 34 square miles distributed among eight relatively small areas within the urban perimeter: Bull Mtn.; Newell Creek area east of Oregon City; Dunthorp; Mt. Scott area; Boring Hills south of Gresham; Salmon Creek area; the fringe area northeast of Orchards; and the fringe east of Ellsworth.

MAJOR COMMERCIAL CENTERS - Three metropolitan-type (Class Ia) business districts would be envisioned: Portland, Vancouver, and the emergence of a third in Beaverton. Six sub-metropolitan downtown districts (Class Ib): Gresham, Oregon City, Milwaukie, Lake Oswego, Hillsboro and Tigard. Five major shopping centers designed as a unit (Class IIa): Lloyd Center, Washington Square, Jantzen Beach, and new ones at Orchards northeast of Vancouver, and in the North Clackamas area.

MAJOR INDUSTRIAL - approximately 24 square miles of major industrial land of which less than 10 percent would be located in outlying communities. Essentially, major industrial lands would be situated within the central urbanized area except for the St. Helens-Columbia City area and Camas-Washougal.

MAJOR COMMUNITY SERVICE & OPEN SPACE - About 70 square miles distributed on the basis of present patterns plus the 1971 CRAG Open Space Plan and others as needed.

#### DETAILING THE DISPERSION CONCEPT

The dispersion concept began with the idea that urban growth might be selectively dispersed to certain outlying locations in a controlled fashion. The aim would be two-fold: avoid settlement

of prime agricultural lands and reshape the pressures for outward urban expansion (dispersion) into clustered communities rather than scattered settlement. The design approach was thus guided by the following broad considerations:

- a) Urban growth would be channelled as much as possible to existing outlying cities by allocating a proportionately larger amount (roughly 40 percent) of new urban lands to areas adjacent to outlying cities.
- b) Growth of the central urbanized area would be accommodated as much as possible by increasing medium and low density areas and populations in proportion to high density.
- c) In general, growth of the outlying cities would be favored over adding more land to the central urbanized area.
- d) Major community service facilities and land areas would be assumed to remain essentially unchanged from their present pattern except with the addition of needed new facilities.
- e) Major open space would incorporate elements of the CRAG Open Space Plan adopted in 1971; otherwise the present pattern of major open space would be assumed.

Highlights of the resulting dispersion design shown on page 152 are summarized below and the population allocation by density class is given in the table on page 157.

URBAN HIGH DENSITY - 9 to 10 square miles located entirely in the vicinity of Downtown Portland. Average population density of these areas would be 10 to 11,000 persons per square mile.

URBAN MEDIUM DENSITY - 75 to 80 square miles located in a pattern roughly similar to the concentration concept, except that medium density areas would be added or increased in the following outlying

communities: Canby, Wilsonville, Forest Grove, North Plains, Scappoose, St. Helens, Battleground, Camas, Sandy, and two new communities in Damascus and Hoodland. Average population density of medium density areas would be 8,000 persons per square mile.

URBAN LOW DENSITY - 225 to 230 square miles occupying the majority of the remaining areas within the urban perimeter. Average population density of these areas would be 4,000 persons per square mile.

SUB-URBAN LOW DENSITY - 20 to 23 square miles distributed among nine relatively small areas within the urban perimeter: Bull Mtn.; a portion of Sherwood; Newell Creek area east of Oregon City; Dunthorp; Mt. Scott area; Boring Hills area south of Gresham; Lacamas Lake area north of Camas; Salmon Creek area; an area adjacent to Forest Park on the west slopes of the Portland West Hills.

MAJOR COMMERCIAL CENTERS - Only one metropolitan-type (Class Ia) business district would be envisioned: namely, Downtown Portland. Eleven sub-metropolitan-type (Class Ib) central business districts: eight within the central urbanized area, Vancouver, Beaverton, Hillsboro, Tigard, Oregon City, Lake Oswego, Milwaukie, Gresham; and three in outlying communities, Forest Grove, Camas, and St. Helens. Four major shopping centers designed as units: Lloyd Center, Washington Square, Jantzen Beach, and a new one in the Orchards vicinity.

MAJOR INDUSTRIAL - approximately 24 square miles of major industrial land, of which about 1/4 would be located in outlying communities. With 25% of the regional total outside of the central urbanized area, communities such as the Lower Columbia River towns of St. Helens, Rainier, and Clatskanie (with the nearby Beaver Industrial Site) could expect comparable increases in employment.

MAJOR COMMUNITY SERVICE & OPEN SPACE - About 70 square miles distributed on the basis of present patterns plus the 1971 CRAG Open Space Plan.

#### DETAILING A COMBINED CONCENTRATION/DISPERSION CONCEPT

Beginning with the premise that an amalgamation of the concentration and dispersion concepts ought to be examined, a third sketch plan was explored seeking to achieve some of the advantages of both. The sketch plan has come to assume a "radial corridor" configuration, and it is avowedly more oriented towards creating and supporting public transit possibilities than the other two concepts. The design approach was guided by the following broad considerations:

- a) Urban growth would be accommodated as much as possible by increasing high and medium density areas and populations in proportion to low densities and concentrating them in corridors.
- b) Some dispersion of urban growth would also occur, but oriented to a few selected outlying cities, particularly those best situated to reinforce or support transit corridors.
- c) In general, growth of the central urbanized area and outlying communities would be more evenly balanced than in the other concepts.
- d) Major community service facilities and land areas would be assumed to remain essentially unchanged from their present pattern.
- e) Major open space would incorporate elements of the CRAG Open Space Plan adopted in 1971, otherwise the present pattern of major open space would be assumed.



The resulting radial corridor design is shown on page 155. Population allocation by density class is given in the table on page 157. Highlights are summarized below:

URBAN HIGH DENSITY - 10 to 12 square miles located generally in the vicinity of Downtown Portland. Average population density of these areas would be 12 to 14,000 persons per square mile.

URBAN MEDIUM DENSITY - 85 to 90 square miles located in a pattern that includes the triangular configuration described under concentration but also includes four corridors extending medium density outward to Gresham on the east, Oregon City on the south, Hillsboro on the west, and connecting Vancouver and Hazel Dell with the Camas-Washougal area. Average population density of medium density areas would be 8,300 to 8,700 persons per square mile.

SUB-URBAN LOW DENSITY - 28 to 32 square miles distributed among eleven relatively small areas within the urban perimeter: Bull Mtn.; Rock Creek Reservoir area; a portion of Sandy; Newell Creek area east of Oregon City; Dunthorp; Scoggins Reservoir area; Boring Hills area south of Gresham; Prune Hill-Lacamas Lake area near Camas; the hills back of Washougal; the Salmon Creek area; an area adjacent to Forest Park on the west slopes of the Portland West Hills.

MAJOR COMMERCIAL CENTERS - Two metropolitan-type (Class Ia) business districts would be envisioned; Portland and Vancouver. Eleven sub-metropolitan business districts (Class Ib): six inside the central urbanized area, Hillsboro, Beaverton, Tigard, Oregon City, Lake Oswego, Gresham; five in outlying communities, St. Helens, Forest Grove, Canby, Sandy, Camas. Five major shopping centers designed as a unit (Class IIa): Lloyd Center, Washington Square, Jantzen Beach, and new ones at Ellsworth east of Vancouver, and in the North Clackamas area.

MAJOR INDUSTRIAL - approximately 24 square miles of major industrial land of which 1/5 would be located in outlying communities. Industrial lands in outlying communities would follow the pattern of the dispersion concept, although somewhat scaled down in magnitude and oriented as much as possible to the high and medium density corridors.

MAJOR COMMUNITY SERVICE & OPEN SPACE - about 70 square miles distributed on the basis of present patterns plus the 1971 CRAG Open Space Plan.

TRANSPORTATION IMPLICATIONS - The sketch plan has a "radial corridor" configuration. The pattern of land uses and densities is more strongly oriented toward creating and supporting public transit possibilities than either the Concentration or the Dispersion alternatives.

#### RECOMMENDATIONS

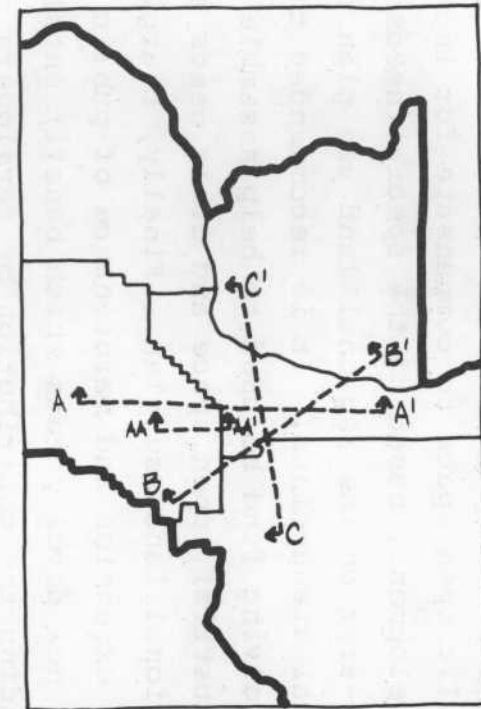
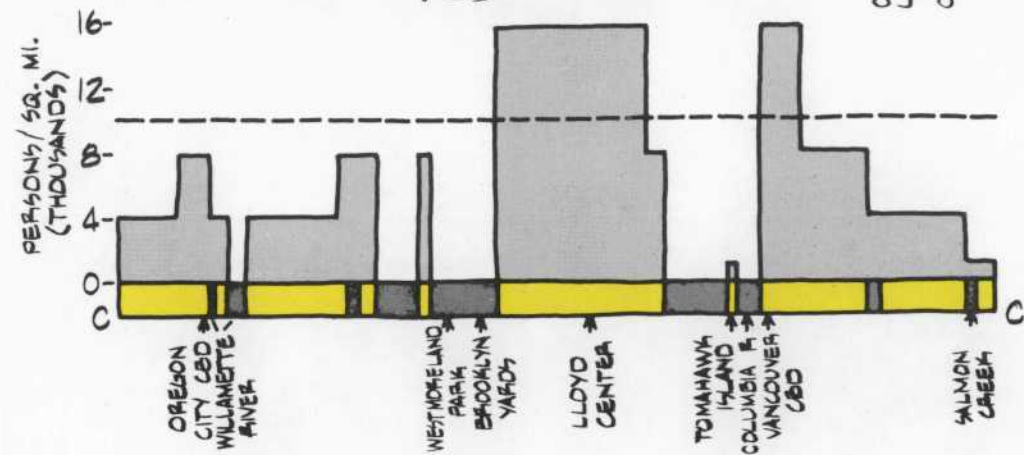
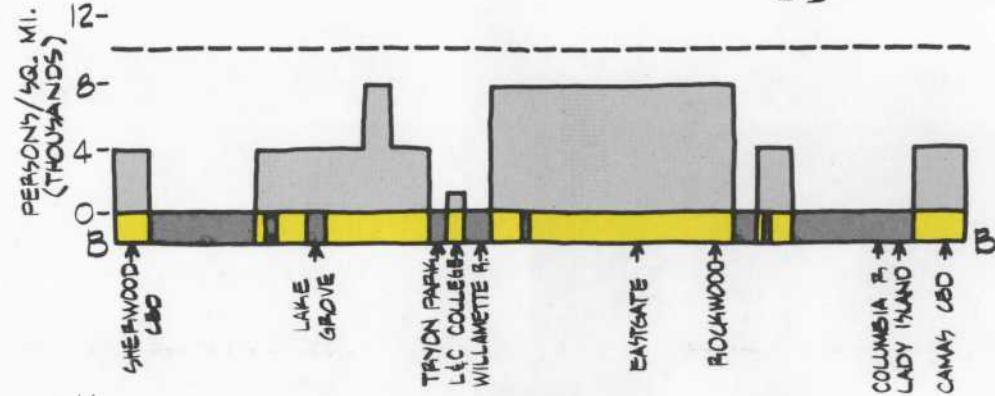
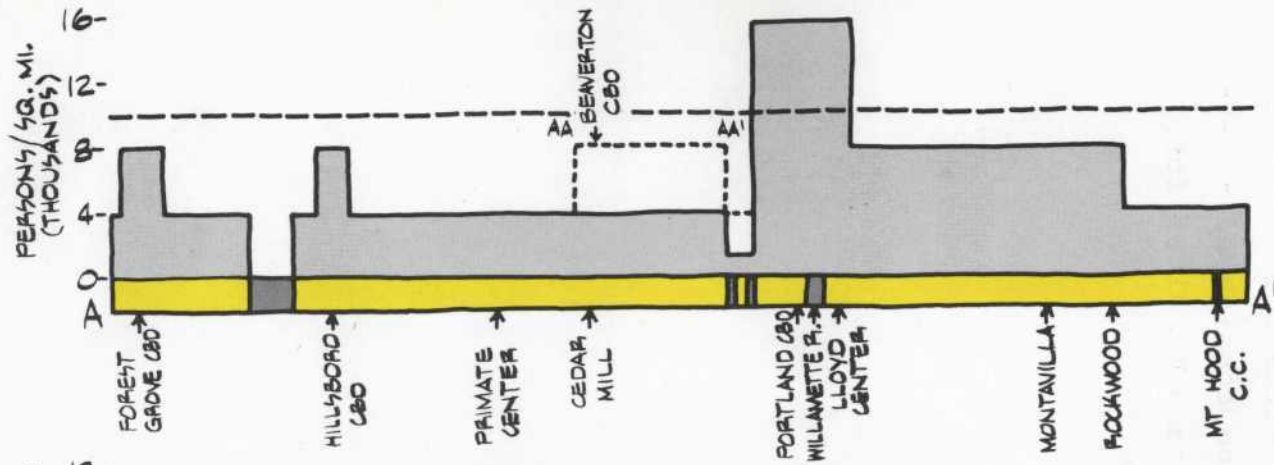
In order to shift from "business as usual" and move toward the adopted new goals, all of the points in the Six-Point Program will need to be employed in concert. The revolving fund and other recommendations in Point 3 and the revision of the property tax system in Point 6, in particular, are key to the success of the development program for urban zones. In addition, it is specifically recommended that, within the regional urban zones derived on the basis of the land use concept eventually selected, priorities be assigned to different areas for the purpose of programming governmental activities. The needs of areas (1) to be newly urbanized, (2) to be renewed or rehabilitated, and (3) to be protected and enhanced for the sound values they already possess, will differ. The priority and timing of the differing programs for these different areas needs to be established and followed by public and private sectors alike.

It is recommended that the CRAG community consider scheduling public capital improvements, and acquiring permanent public open space to compensate for increased intensity of development, based on the special needs and priority of each sub-area on the regional land use plan from both regional and local standpoints. It is recommended that the proposed regional revolving fund be used to help assemble sites to meet housing, industrial, open space and other needs as called for by the regional land use plan. Finally, charging the true costs of the extension and maintenance of public services directly to the new developments which benefit should be considered, including the contribution by developers of cash or sites for public facilities such as schools and parks.

# CONCENTRATION ALTERNATIVE

## ILLUSTRATIVE DENSITY CROSS-SECTIONS

RESIDENTIAL LAND  
USE  
 NON-RESIDENTIAL  
OR RURAL LAND  
USE

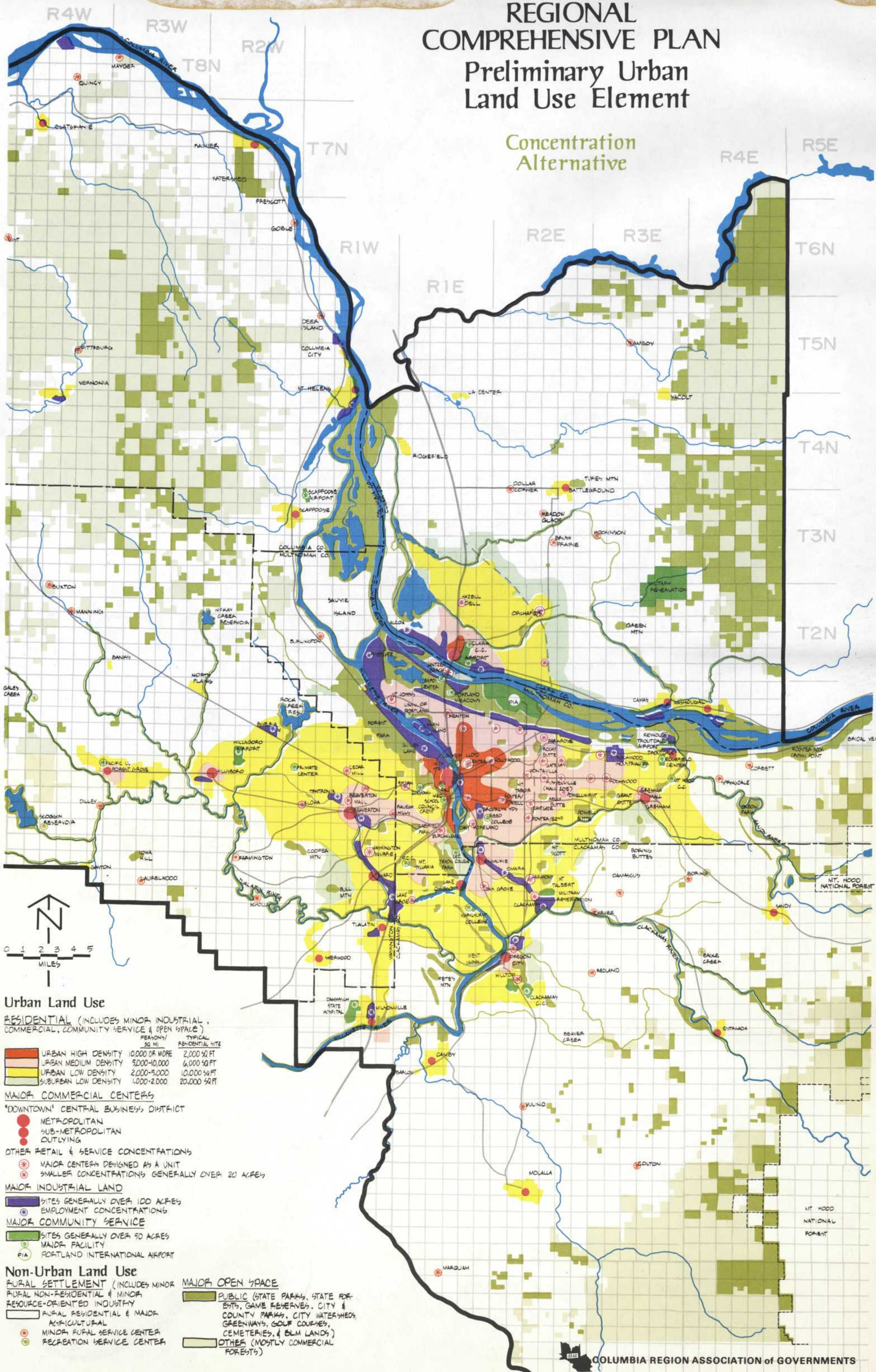




# REGIONAL COMPREHENSIVE PLAN

## Preliminary Urban Land Use Element

Concentration  
Alternative



### Urban Land Use

RESIDENTIAL (INCLUDES MINOR INDUSTRIAL, COMMERCIAL, COMMUNITY SERVICE & OPEN SPACE)

	PEAK DENSITY PER ACRE	TYPICAL RESIDENTIAL SITE
URBAN HIGH DENSITY	10,000 OR MORE	2,000 SQ FT
URBAN MEDIUM DENSITY	5,000-10,000	4,000 SQ FT
URBAN LOW DENSITY	2,000-5,000	10,000 SQ FT
SUBURBAN LOW DENSITY	1,000-2,000	20,000 SQ FT

### MAJOR COMMERCIAL CENTERS

- "DOWNTOWN" CENTRAL BUSINESS DISTRICT
- METROPOLITAN
- SUB-METROPOLITAN
- OUTLYING

### OTHER RETAIL & SERVICE CONCENTRATIONS

- MAJOR CENTERS DESIGNED AS A UNIT
- SMALLER CONCENTRATIONS GENERALLY OVER 20 ACRES

### MAJOR INDUSTRIAL LAND

- SITES GENERALLY OVER 100 ACRES
- EMPLOYMENT CONCENTRATIONS

### MAJOR COMMUNITY SERVICE

- SITES GENERALLY OVER 50 ACRES
- MAJOR FACILITY
- PORTLAND INTERNATIONAL AIRPORT

### Non-Urban Land Use

RURAL SETTLEMENT (INCLUDES MINOR RURAL NON-RESIDENTIAL & MINOR RESOURCE-ORIENTED INDUSTRY)

- RURAL RESIDENTIAL & MAJOR AGRICULTURAL
- MINOR RURAL SERVICE CENTER
- RECREATION SERVICE CENTER

### MAJOR OPEN SPACE

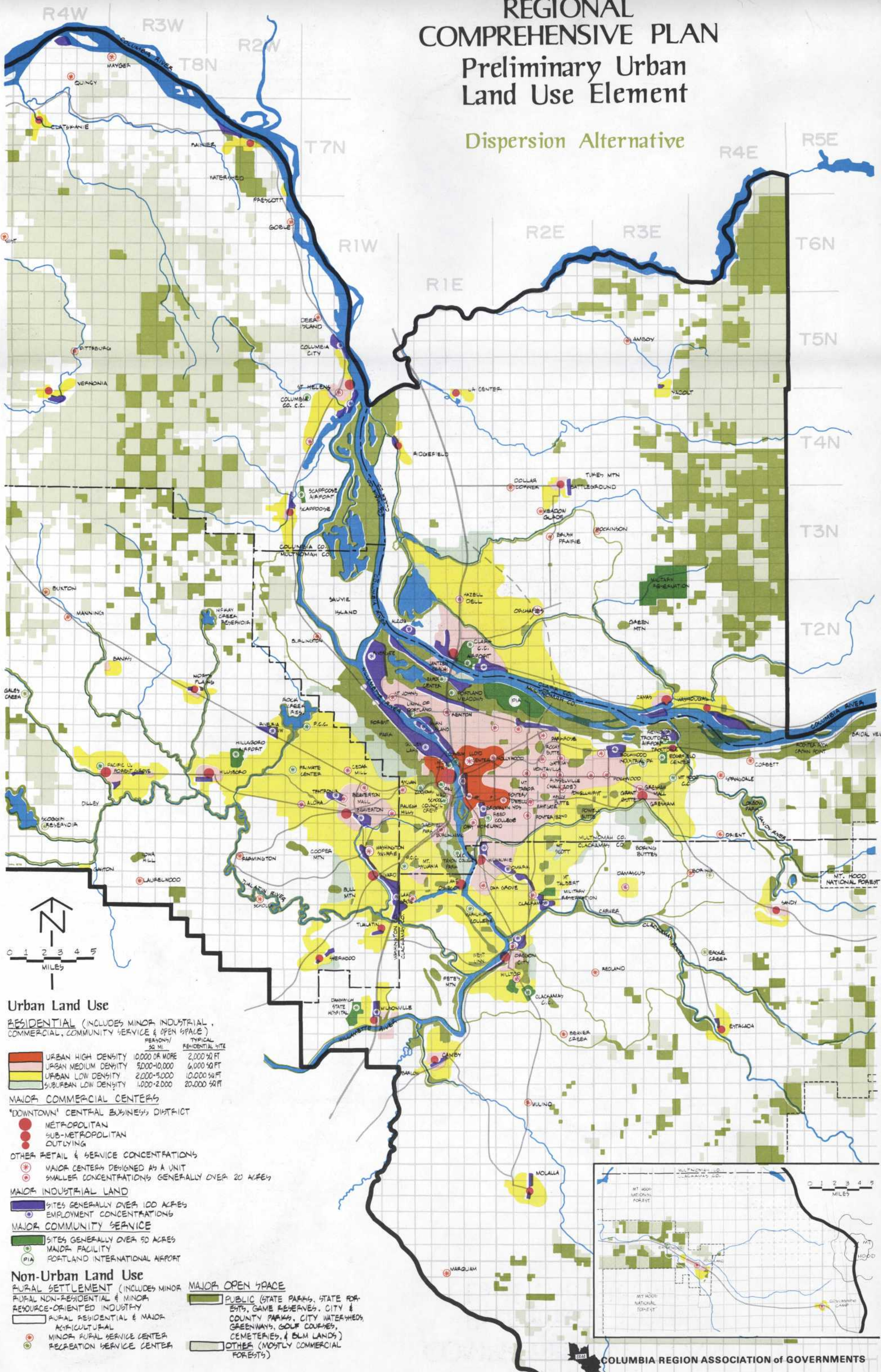
- PUBLIC (STATE PARKS, STATE FORESTS, GAME RESERVES, CITY & COUNTY PARKS, CITY WATERSHEDS, GREENWAYS, GOLF COURSES, CEMETERIES, & BLM LANDS)
- OTHER (MOSTLY COMMERCIAL FORESTS)



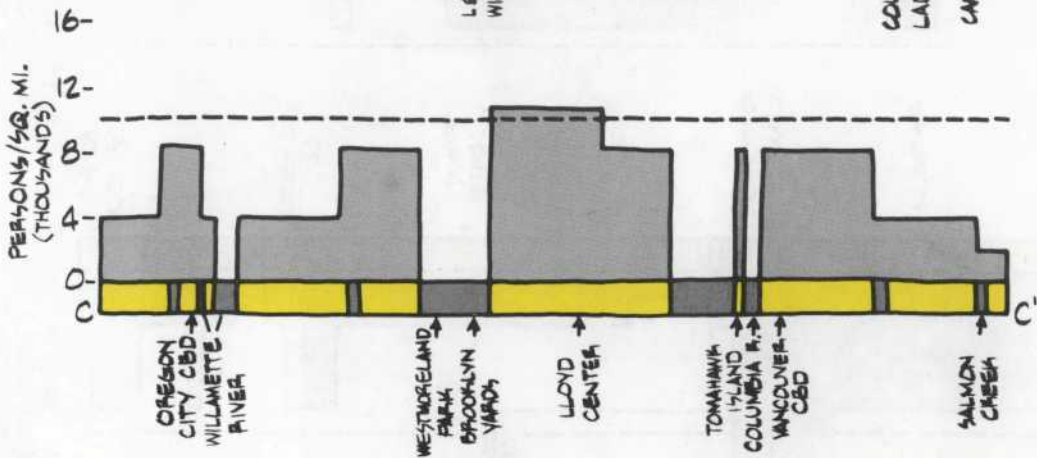
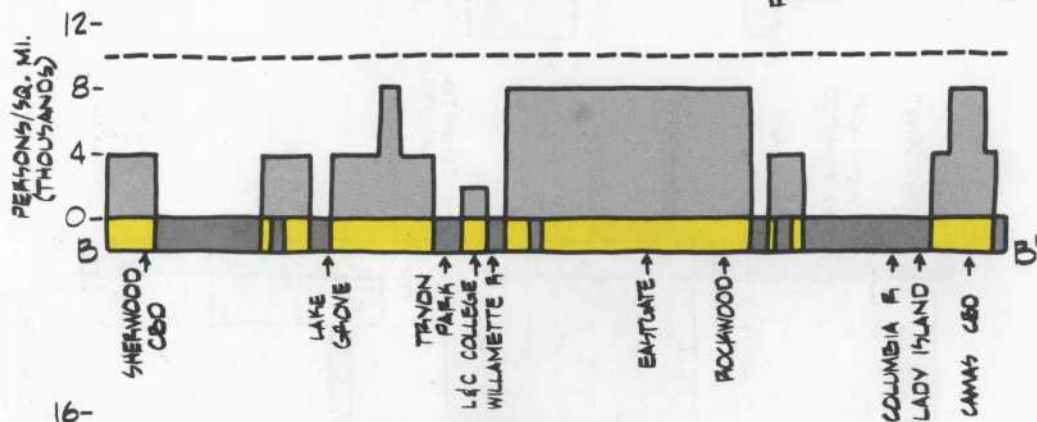
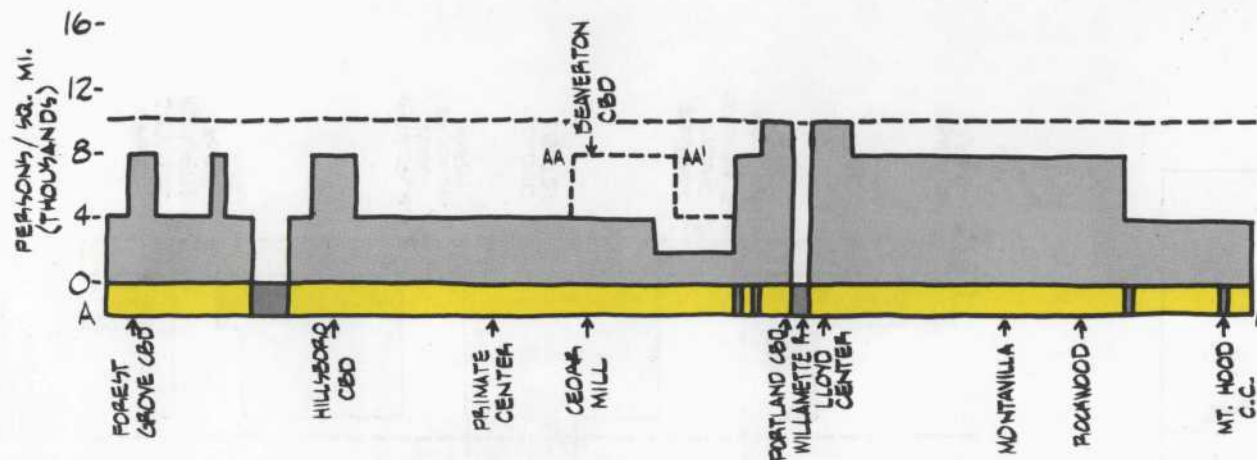
# REGIONAL COMPREHENSIVE PLAN

## Preliminary Urban Land Use Element

### Dispersion Alternative

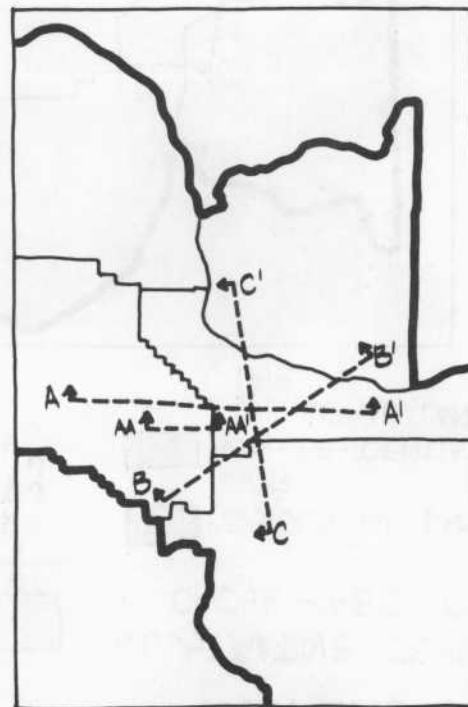
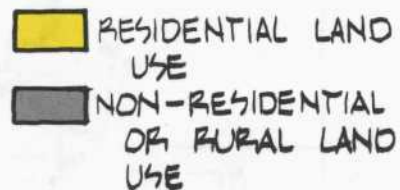






## DISPERSION ALTERNATIVE

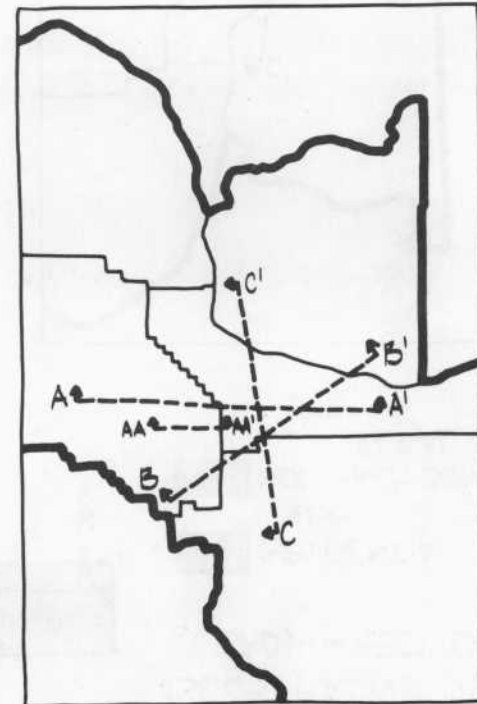
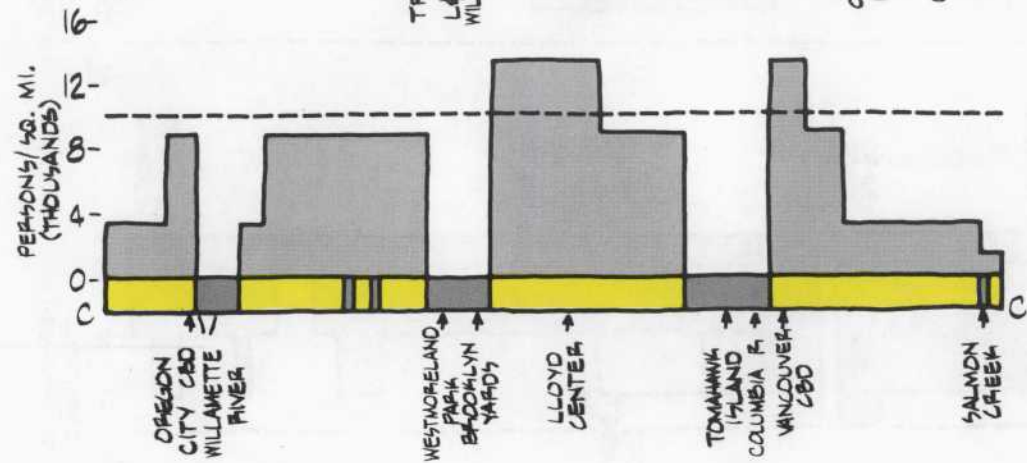
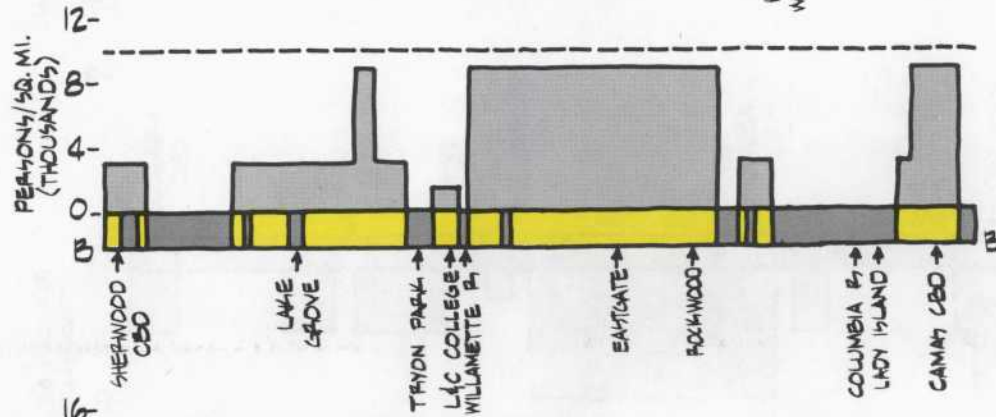
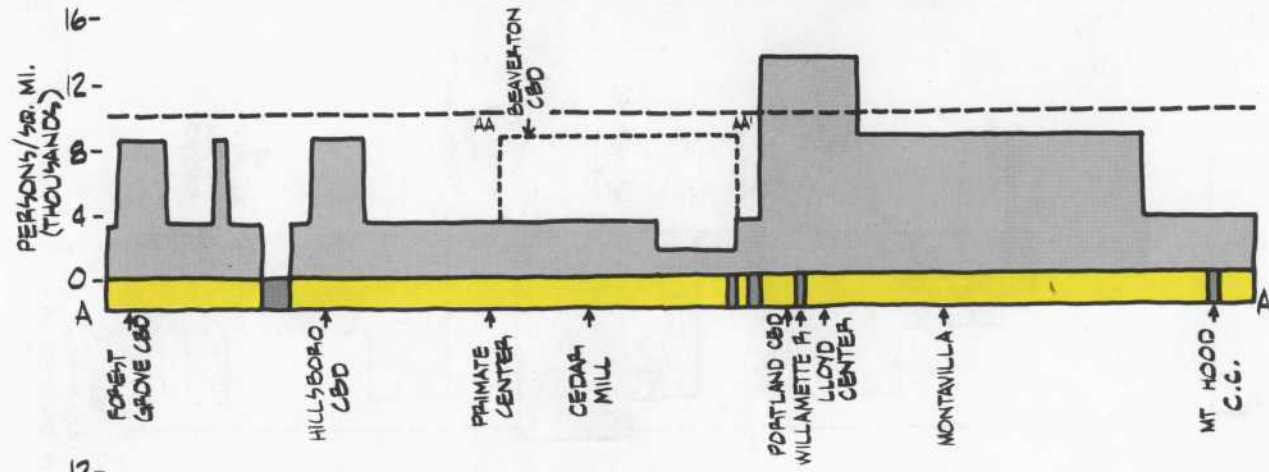
ILLUSTRATIVE DENSITY  
CROSS-SECTIONS



# COMBINED CONCENTRATION/ DISPERSION

ILLUSTRATIVE DENSITY  
CROSS-SECTIONS

RESIDENTIAL LAND  
USE  
 NON-RESIDENTIAL  
OR RURAL LAND  
USE

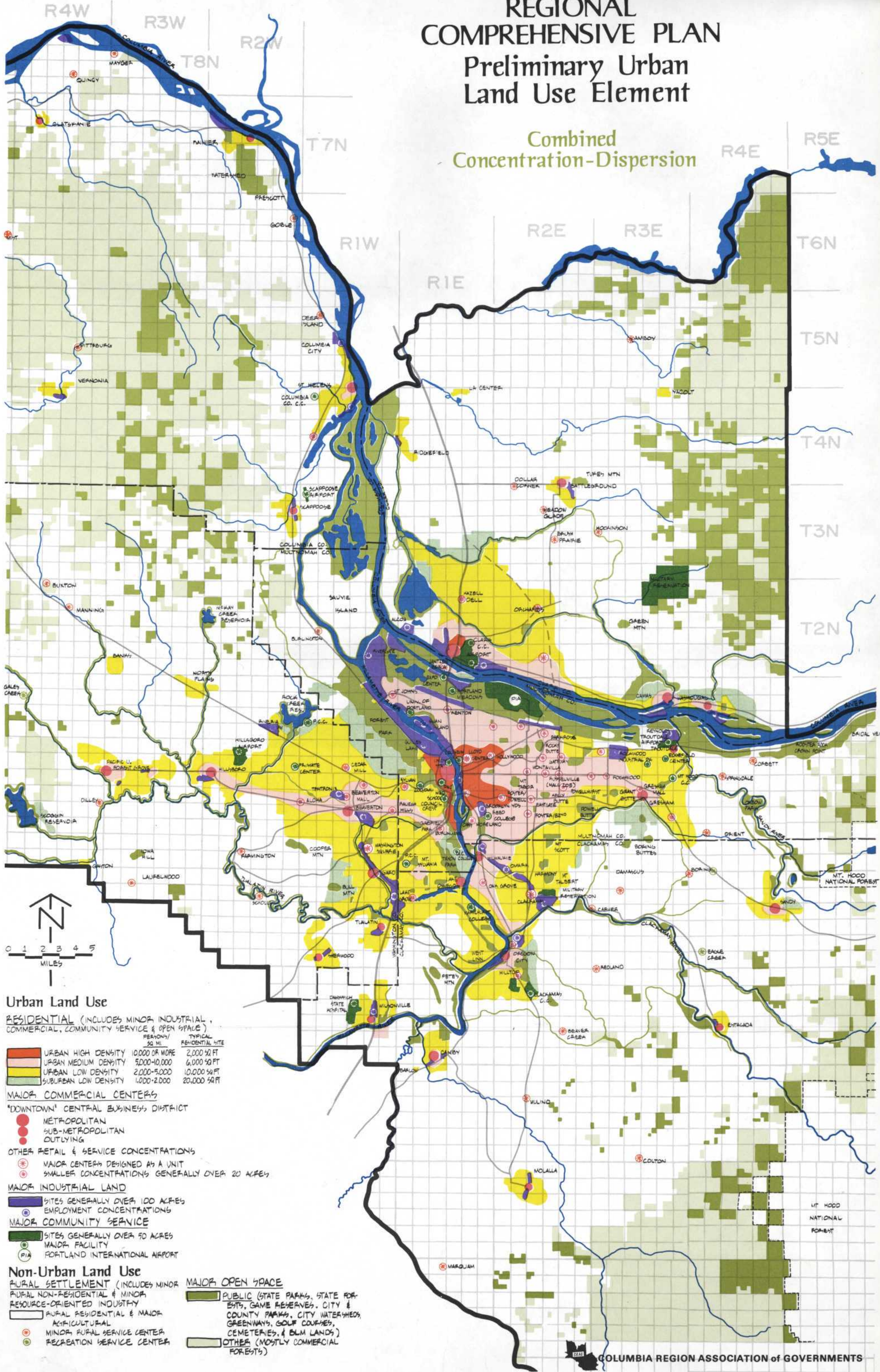




# REGIONAL COMPREHENSIVE PLAN

## Preliminary Urban Land Use Element

Combined  
Concentration-Dispersion









URBAN POPULATIONS AT FULL DEVELOPMENT:  
A COMPARISON OF ALTERNATIVES \*

Design Limits Common to All Alternatives (from page 61)

	<u>Square Miles</u>	<u>Design Population</u>	<u>Average Maximum Density</u>
CRAG Region	4409	2,000,000	450
Rural Total	2013	322,000	160
Uninhabited Total	1964	-	-
Urban Total	432	1,678,000	3900

Comparative Urban Populations by Density Class

			D E N S I T Y <u>Pop. Per Square Mile</u>	
	<u>Approx. Square Miles</u>	<u>Urban Design Population</u>	<u>Range Pop./Sq. Mile</u>	<u>Proposed Average Pop./Sq. Mile</u>
CONCENTRATION ALTERNATIVE				
Urban High Density	13	194,000	Over 10,000	15,400
Urban Medium Density	74	580,000	5,000 to 10,000	7,800
Urban Low Density	222	850,000	2,000 to 5,000	3,800
Sub-Urban Density	33	54,000	1,000 to 2,000	1,600
Major Non-Residential	89	-	-	-
DISPERSION ALTERNATIVE				
Urban High Density	9	100,000	Over 10,000	10,700
Urban Medium Density	78	628,000	5,000 to 10,000	8,000
Urban Low Density	226	910,000	2,000 to 5,000	4,000
Sub-Urban Density	21	40,000	1,000 to 2,000	1,900
Major Non-Residential	97	-	-	-
RADIAL CORRIDORS				
Urban High Density	11	142,000	Over 10,000	12,900
Urban Medium Density	89	758,000	5,000 to 10,000	8,500
Urban Low Density	220	734,000	2,000 to 5,000	3,300
Sub-Urban Density	30	44,000	1,000 to 2,000	1,500
Major Non-Residential	82	-	-	-

\* For comparative urban populations at full development for each city and county, see pages 243 to 248 in the appendix.



# And now, the two-home family

By RALPH SHAFFER  
Christian Science  
Monitor News Service  
LOS ANGELES, CALIF. —  
This ad appeared in a Los Angeles paper this summer:

**Big Hill  
Success  
Condominiums  
From \$22,900**  
... with luxury appointments  
and commanding views. All are  
two stories, choice of two or  
three baths, two, three, or four  
bedrooms, GE kitchens,  
fireplaces, sundecks, cedar  
shake roofs, beamed ceilings,  
carpeting, draperies. Larger

done master planning and  
economic analysis for ski  
developments in Sun  
Idaho; Snow Mass  
Idaho; Stowe, Vt.  
Colo.; as well  
Mont.; as well  
Yosemite and the  
dino Mountains.

"Ten year  
"there were  
in the U.  
figure  
And it  
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h

Of these three classifications,  
Mr. Flood believes the greatest  
growth will be in the third  
group, and therefore from a  
development viewpoint, in  
second-home vacation com-  
munities. This trend has become  
arent through the rise of  
as complete family  
whether it's racing,  
simply taking



## 5. Resource Management and Development Program for Non-Urban Zones



# The Oregonian

Established as a daily Feb. 4, 1851. Sunday Oregonian established Dec. 4, 1881. Published daily and Oregonian Publishing Co., Oregonian Bldg., 1320 SW Broadway, Portland, Oregon 97201. Telephone 226-2121.

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ROBERT C. NOTSON,  
Publisher

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FRIDAY, NOVEMBER 10, 1972

## Letters

By CLARENCE ZAITZ

SALEM (UPI) — The Willamette Valley is running out of sand and gravel, says the Division of State Lands. If the situation continues

unabated, all the known sand and gravel deposits in the Willamette Valley may be exhausted by the year 2000. That's a report that the State Land Board is considering as it thinks about increasing the royalty fee charged firms which dredge the sand and gravel from state's rivers.

SINCE  
been

## The land-use mess

Candidates for the Legislature spent a lot of time endorsing "land-use planning" and the Interim Committee on Natural Resources notes it has been called the most important remaining environmental issue. But what happens now?

The interim study published this month takes up the topic in the last article of its attractive magazine-style report and offers only a land-use bill, and that a measure dealing with scenic waterways

The Natural  
the heart of  
ers or

# Rurapolis' — a way-out place to live

Out from urbia to suburbia — and far beyond — to exurbia moves the vanguard of a massive exodus. Born of this movement is a new word for our lexicon — "rurapolis" — a way out, geographically speaking, place to live.

neighbor by choice and not by compulsion. "A veritable crusade for personal comfort motivates this back to the land mission. The goals are comfortable homes, newly built or reclaimed from hundred-year-old estates. "These 'settlers' are innovative and what they create will be the style-setting standards for those who follow. "And, mark my words, next 15 or 20 years

hospitals, linked in turn to major medical centers, already exist.

"Look for a redevelopment of our smaller communities — greater employment opportunities, educational achievement, superior health care and extensive cultural and entertainment pursuits.

"Several thousands of these small towns, with a moderate amount of redevelopment, could easily accommodate most of our population growth for the next 40 years.

"We could even double the size of the United States by further strain on the land use.

schools will be replaced by modern and efficient educational facilities, staffed by outstanding faculties and tastefully designed.

— Service industries will be encouraged to build attractive and compatible centers, with laundry and dry cleaning shops, convenience grocery stores, television repair shops, gas stations, drug stores and repair centers.

— Cultural development about — town bands, theater, traveling symphony and town meetings.

— Financial services follow — and perhaps some of its clients. — mortgages, mutual funds, bonds, savings plans will be "rurapolis."

## Land sale freeze enrages B.C. farmers

By LESTER A. HALPIN

Special Writer, The Oregonian

A BILL currently before the British Columbia legislature which would set up a five-member commission to control all land use in the province has brought threats of a farmers' march on Victoria and a plea from a farm leader that growers refrain from planting any crops this year.

Legislation introduced Feb. 22 by the Socialist oriented New Democratic Party now in power far surpasses legislation in force elsewhere for preserving agricultural land and all other open spaces. In effect, the commission

is in force pending action on the bill under consideration.

The president of the British Columbia Federation of Agriculture, Charles Bernhardt, said he will recommend to the federation's 10,000 members that they cease work immediately on all 1973 crops. He pointed out that many farmers had been counting on rising land values for retirement funds, and while the federation did not oppose agricultural land preservation per se, he insisted there must be compensation to farm owners for "devaluation" inherent in the freeze.

as large in area as Oregon and Washington combined but its arable land is limited. From the province's eastern border to the Pacific ocean its topography shows parallel mountain ranges separated by narrow valleys. Agriculture is confined principally to the delta of the Fraser River where Vancouver's spreading urban sprawl is relentlessly covering one-time berry fields and cabbage patches with the typical tacky houses of suburbia. In the interior, the 69-mile-long fruit-growing Okanagan valley's orchard lands are

## LAND USE AND ENVIRONMENTAL PROBLEMS AND ISSUES

Beyond city and suburban pavements stretches an area more often than not taken for granted, at least until recently; the rural countryside that gradually shades into forest-clad mountainous backcountry. It has been all too easy to view this area as little more than a land reserve for urban expansion and a place to momentarily escape the city's hectic pace. But we are now beginning to see more clearly the full significance of the multiplicity of resources beyond the edge of town and to appreciate the loss that unilateral management of these resources (i.e., outside the context of a regional comprehensive plan) could result in for urban and rural residents alike.

The resources of the countryside run an impressive gamut: agriculturally productive soils; forest stands; watersheds; mineral deposits; wildlife habitat; places to camp, fish, hunt, boat, ski; second-home sites; and simply room for some people to pursue a non-urban way of life. But severe new and sometimes conflicting demands are being placed on these resources by the burgeoning urban population, and we run the risk of loss of quality if not depletion of some of them.

Many questions are at issue. One of the most difficult is the agricultural land question. How important is prime agricultural land for food production? Should we adopt the proposal in a recent OSPIRG study that Class I, II and III land in existing farms should be managed as an "area of critical state concern"? (Oregon's Prime Agricultural Lands: An Area of Critical State Concern, OSPIRG, March, 1973). Are current food shortages merely temporary aberrations or something we risk having to live with indefinitely? How much acreage does an economically viable farm require and how does it vary for different types of farming?



Other questions are: Can gravel deposits be extracted without harming water quality or sacrificing the landscape? Is the settlement of large numbers of people on the lower slopes and valleys of Mt. Hood -- a dormant volcano -- an invitation to disaster? Can the transitional instability of the area between town and country be reduced or checked? At what point will over-use destroy the ecological balance --- and hence the value for people --- of natural areas?

### REGIONAL GOALS

Problems and issues of the non-urban countryside are put in perspective by goals and policies adopted by CRAG:

#### ● REGIONAL GROWTH

Achieve a balance between population growth, industrialization, and regional resources that permits sustained yield of renewable resources, conservation of non-renewable resources...

All...resources in the CRAG area should be managed to maintain...values on a sustained basis...decisions will be made with a basic aim of KEEPING OUR OPTIONS OPEN.

#### ● REGIONAL SETTLEMENT

Achieve a distribution of urban and rural settlement...consistent with...setting, resources and land capacity.

#### ● URBAN-RURAL DIFFERENTIATION

Achieve a pronounced and recognizable distinction between urban and rural settlement.

...to insure that urban growth and develop-

ment occurs in those places designated...preserve all other areas as rural and/or relatively uninhabited...

● AGRICULTURE AND FORESTRY

...capitalize on agricultural and forest lands to support urban containment and community identification goals...assure diversity in job opportunities, economic base, life styles, environmental conditions and recreation opportunities; to preserve agricultural and forest resources in order to keep from foreclosing future options in a time of uncertainty and rapid change.

● OPEN SPACE

Protect natural areas, watersheds, reservoir sites, forest lands, flood plains, exceptionally rough terrain, and areas of scenic, historic or other interest that have recreation or open space value.

Search for ways in addition to outright acquisition to preserve water courses, flood plains, agricultural and other special open lands, such as through management programs designed to assure that the use of such areas is consistent with the land's limitations and existing values and with the regional comprehensive plan.

A FRAMEWORK FOR RURAL PLAN ALTERNATIVES

The array of unresolved conservation and development issues in the non-urban areas is formidable. A major step toward their resolution is to establish a framework that incorporates what has been agreed upon in the adopted goals and policies as a jumping-off place for exploring detailed rural planning alternatives. Most of the problems and issues fall readily under one of three broad areas of concern: (1) the rural countryside as a place to live; (2) as a food-producing resource; and (3) as a veritable

store-house of other material resources and human values.

What agreements are there about these broad areas of concern? First, regional goals and policies allow for some degree of rural residential settlement and thus some space must be provided for rural homesites. Second, we are committed to some degree of farmland preservation. We cannot avoid the fact that conversions of agricultural land to urban use are largely irreversible. We can conserve now by building on non-agricultural soils. We can convert agricultural soils later if necessary. We cannot expect to build now and reclaim later for farming. The stakes are too high to gamble on the possibility that farmland in the Willamette Valley and the CRAG area in particular may be insignificant relative to the northwest or the country as a whole.

Our adopted goals and policies view forest lands similarly. In this case, there is little or no dispute as to the desirability of keeping existing timberlands in production as opposed to giving them over to other uses. There is strong controversy, however, over forest management methods such as clear-cutting, and over whether we are in fact managing public and private forest lands on a sustained yield basis and not depleting the resource.

Broadly speaking, our adopted goals and policies thus represent a commitment to identify and conserve as many of our natural resources, with their attendant tangible and intangible values, as our capabilities will permit. The regional comprehensive plan will lay out the guidelines, within the framework of three major types of zones or areas:

- Rural Residential - areas in which the majority of the rural population (especially non-farm) would permanently reside; service centers for recreation and rural needs are included.

- Major Agricultural - areas in which farming as a commercial enterprise would be the principal land use, with only ancillary residential settlement.
- Conservation - areas in which human settlement would largely be excluded in order to assure conservation of resources or values.

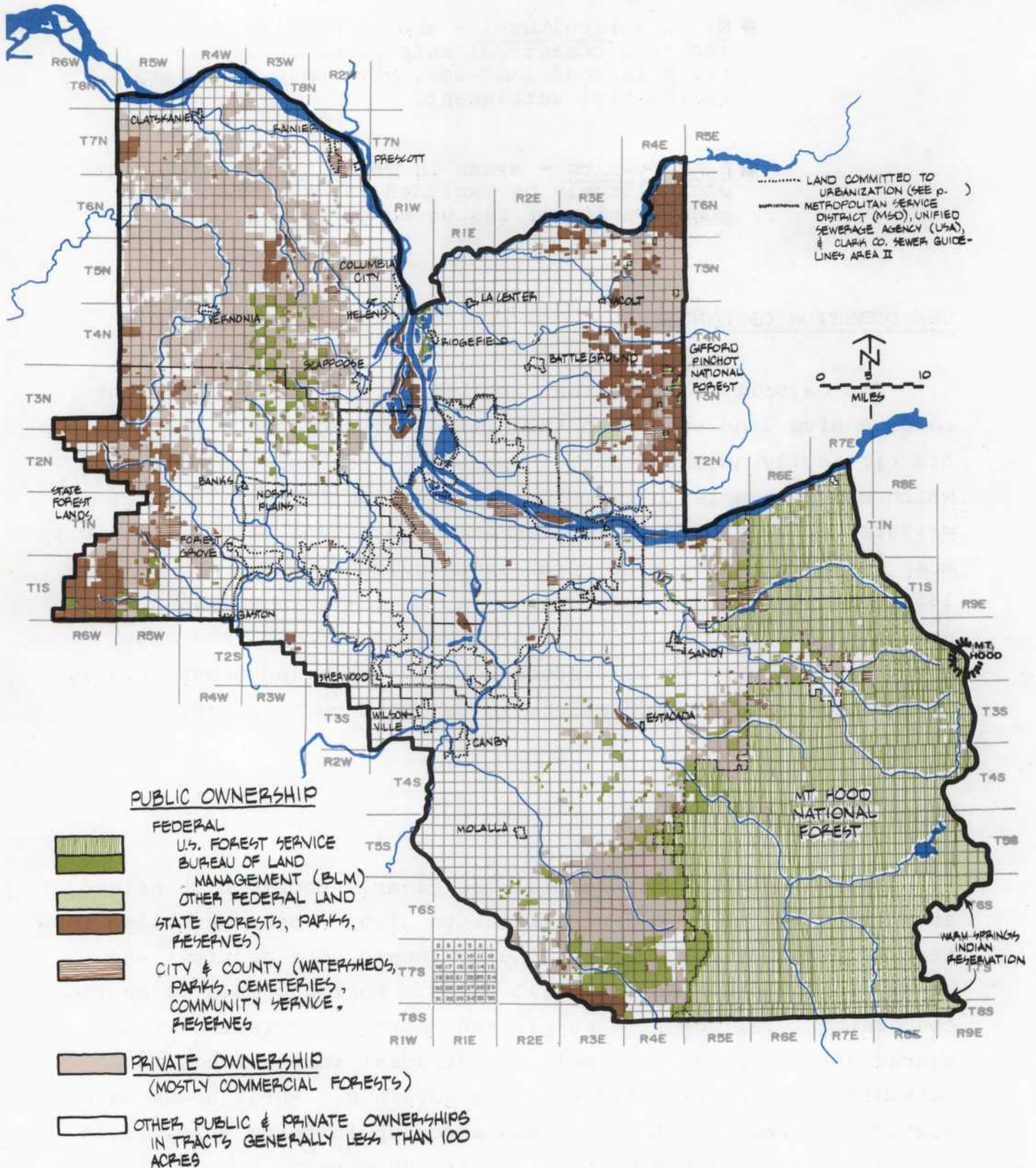
### THE QUESTION OF OWNERSHIP

The majority of non-urban activities tend to be dependent on extensive land areas and thus large, unfragmented land holdings are distinctly advantageous. Because of this and the degree to which public ownership restricts the availability of land for private use, any effort to delineate major areas of rural activity must begin with a look at rural land ownership. The map on page 166 shows the regional pattern of public and private land holdings generally exceeding 100 acres per parcel. The major non-urban activity areas discussed below are based substantially on the ownership considerations illustrated by this map.

### RURAL RESIDENTIAL ZONES

Space for rural residential use clearly should be confined as much as possible to lands that have already been parcelled into tracts less than forty acres (one-sixteenth of a section) and which are not prime agricultural lands. Regional data is sparse concerning rural homesite supply and demand or existing parcel characteristics, and thus only the broadest indication of a suitable range of site sizes is now possible. Rural homes on a mixture of sites ranging from two acres up to forty acres would mean a rural population slightly over 500 persons per square mile

# LAND OWNERSHIP





(assuming about 3 persons per rural household). At this density, 600 square miles of rural residential land would accommodate 300,000 people, which fits the proposed overall regional population growth guidelines (see page 61 ).

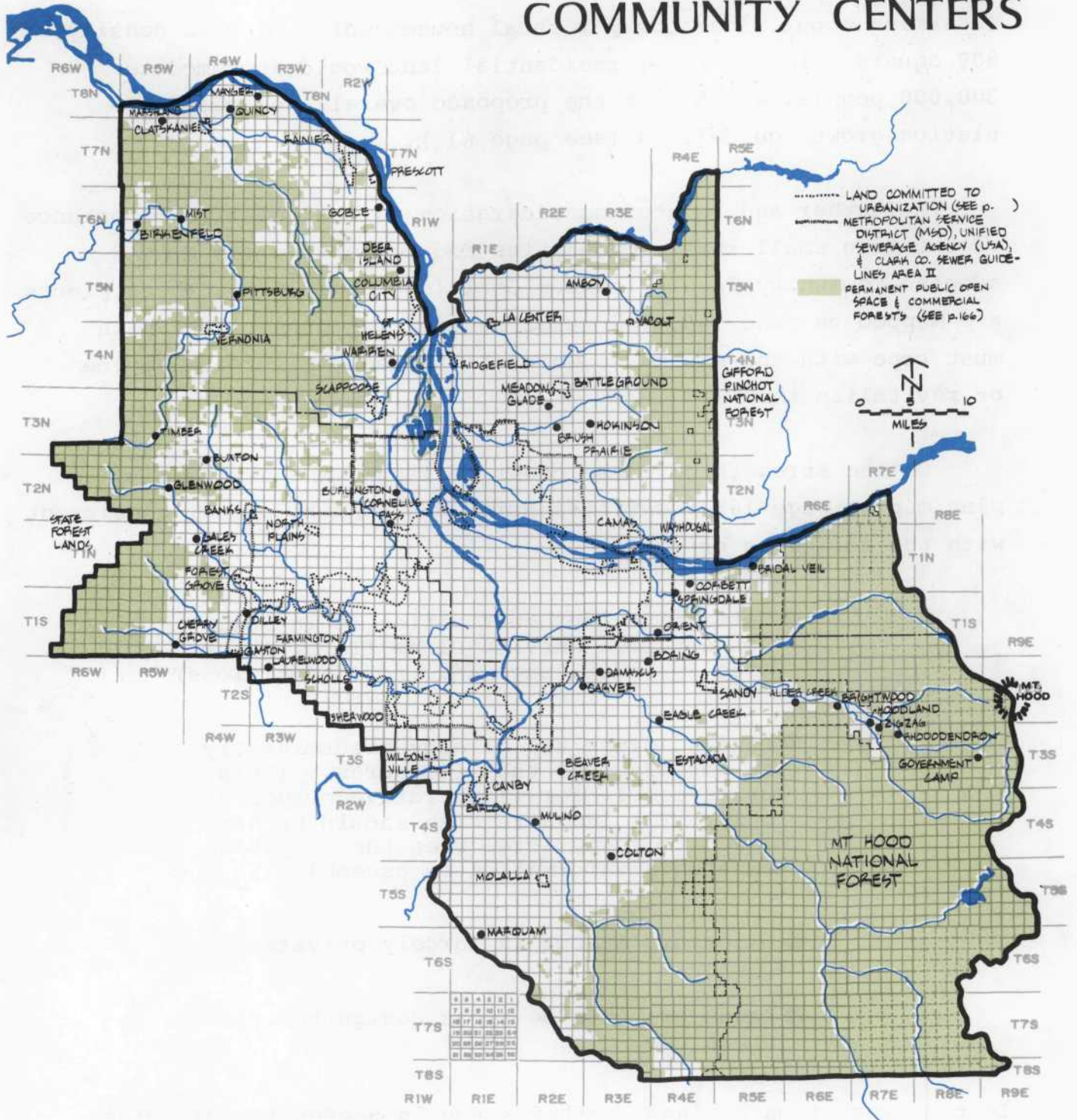
A further and related consideration is the relative importance of existing small rural communities and centers, given CRAG's adopted Community Identification Goal (see page 137). These places are mapped on page 168. The rural residential part of the plan must cope with the extent to which it is desirable to reinforce or revitalize them.

On the strength of these considerations, the preliminary plan map on page 169 identifies Rural Residential areas, consistent with the following criteria:

- Suitability for cultivation is in Soil Conservation Service Class III or lower. (see Appendix, page 249, for definitions)
- Land holdings are already predominantly in parcels less than 100 acres. (This criterion is for illustrative purposes only. The 100 acre size should be narrowed to forty acres when the requisite ownership information is assembled.)
- Ownership status is largely private.
- Lands are outside areas designated for urban use.

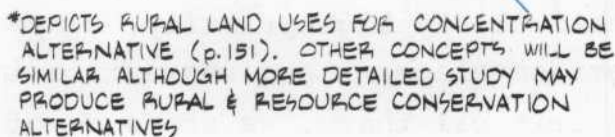
In the areas thus defined further study is needed to determine how closely they actually fit market conditions for rural homesites, on the one hand, and regional density and population growth limitations on the other. If an over-supply is evident--

# EXISTING RURAL COMMUNITY CENTERS





## Concentration Alternative\*



as is likely with a total regional design population of two million -- the best Class III lands should be identified in detail and an appropriate amount removed from the Rural Residential category and reclassified Major Agricultural. Further detailing of the Rural Residential pattern also will occur following additional study of the pattern of existing places of rural community identity shown on page 168.

Possibly the most critical rural residential problems concern second homes, recreation or resort development, related service needs and other intensive or resource-extractive activities such as gravel mining. These intensive developments or activities potentially conflict with the rural environment. Their impact is a matter of serious concern, best dealt with through performance standards that take into account their specific characteristics, needs, and environmental impacts -- such as standards governing location in relation to other land uses, noise and air pollution, screening, site restoration after the activity is terminated, protection of special environmental or ecological values nearby, etc. An important refinement of the Rural Residential part of the plan thus will be to define more precisely the location, nature and extent of resources giving rise to intensive activities or development, and to specify appropriate performance standards to govern them.

Clackamas County's recently completed Preliminary Plan, Mount Hood Community (1972), and the subsequent interagency planning effort for the Mt. Hood Planning Unit sponsored by the U.S. Forest Service to carry the work of detailing a step further, are good examples of what is needed. Moreover, the Mt. Hood studies have a particularly high priority, since the issues of second homes, resort development and recreation impact (winter and summer) are most critical there, as are some of the major conservation issues. The outcome is clearly a matter of region-wide concern.



## MAJOR AGRICULTURAL ZONES

The non-urban framework plan includes zones designated as "Major Agricultural", consistent with our overall commitment to preserve farmland as a means of forestalling the loss of future options. Initially, the sole criterion for identifying such areas has been to include all of the region's Class I and II lands (as defined in the Appendix, page 249) in the Major Agricultural category. By definition these lands are the region's best cropland, and agricultural land use data indicate that proportionately more Class I and II lands are actually in cropland use (see table on page 172). This is not to be interpreted as "writing off" Class III lands which are an important resource. As noted previously (page 170) an as-yet-undetermined portion of the Class III lands will probably not be required for Rural Residential use with a regional design population of two million. These lands also should be assigned to the Major Agricultural category.

In the last analysis, there is no iron-clad assurance that the region's reserve of good farmland can ever be managed to fit long-run demands precisely. Too many imponderables figure in the balance. We have just come through a long era of national farm policies -- reaching back to the Great Depression -- designed to restrain cropland expansion and food production. The fact that half of the region's arable land is productively unused testifies to the local success of these policies. But the tenor of current congressional farm program proposals, in response to rising world-wide food demands, suggests that an era of greatly increased cropland acreages could be in the offing. These considerations make it all the more imperative to begin looking seriously at what should be done to work in concert with such newly emerging national farm policies.

EXISTING AGRICULTURAL USES OF LAND  
IN EACH LAND CAPABILITY CLASS\*, 1967

Multnomah, Clackamas  
Washington and Columbia Counties

USE	Percent of Acreage in Each Class								TOTAL ALL CLASSES
	I	II	III	IV	V	VI	VII	VIII	
CROPLAND IN TILLAGE ROTATION:	75.6	57.1	34.1	13.82	0	1.3	0.1	0	21.29
Field Crops	54.7	34.5	11.7	1.03	0	0.1	0.1	0	9.66
Rotation Hay and Pasture	20.9	19.0	18.3	11.64	0	1.0	0	0	9.76
Hayland	0	1.3	1.3	0.70	0	0.2	0	0	0.73
Conservation Use Only	0	1.0	1.1	0.24	0	0	0	0	0.48
Temporary Idle Cropland	0	1.3	1.7	0.21	0	0	0	0	0.66
ORCHARDS, VINEYARDS AND BUSH FRUIT	4.7	5.0	3.7	1.2	0	(0.01)	0	0	1.97
OPEN LAND FORMERLY CROPPED	0	0.9	1.5	3.0	0	0	0	0	0.85
TOTAL CROPLAND	80.3	63.0	39.3	18.0	0	1.3	0.1	0	24.11
PASTURE AND RANGE	0	2.9	1.1	11.4	0	1.2	1.3	0	2.6
FOREST	13.2	26.9	55.6	67.2	0	97.2	98.6	100	70.5
Commercial	12.5	26.1	54.7	66.9	0	96.1	88.6	100	69.3
Non-Commercial	0.7	0.8	0.9	0.3	0	1.1	10.0	0	1.2
OTHER LAND	6.5	7.2	4.0	3.4	0	0.28	0	0	2.8
In Farms	6.5	3.9	3.1	1.4	0	0.14	0	0	1.7
Not in Farms	0	3.3	0.9	1.9	0	0.14	0	0	1.1
Percentage	100.	100.	100.	100.	0	100.	100.	100.	100.
TOTAL SQUARE MILES	18.9	381.9	529.8	230.8	0	913.5	68.3	3.3	2146.3

\* For definitions, see page 249.

Source: Oregon Soil and Water Conservation  
Needs Inventory, Oregon Conservation  
Needs Inventory Committee, Jan., 1971

Beyond the need to identify where our efforts should be concentrated geographically is the further need to devise local policy mechanisms that would actively assist in getting idle prime farmland back into production. For example, the unknown extent to which many formerly large farm holdings have been parceled up over the last three or four decades may require some means to assist in reassembling these fragmented production units. The regional revolving fund proposed on page 122 would readily lend itself to this end.

### CONSERVATION ZONES

The third major part of the non-urban planning framework concerns the region's natural resources and values, non-agricultural areas to be conserved. The initial criteria used to sketch the broad geographic outlines of these Conservation Zones are:

- Public and private lands where holdings generally exceed 100 acres.
- Existing and proposed regional or state parks.
- Flood plains or diked land.
- Other areas of environmental concern, including unique resources or opportunity areas identified in previous open space plans.
- Extension into the rural countryside of greenways proposed in previous open space plans.

These zones should encompass most of the region's major wetlands, timber reserves, wilderness areas, watersheds and wildlife reserves.

A variety of special or unique regional values or opportunities have also been included that are described in more detail in the adopted CRAG open space plan report entitled The Urban Outdoors (June 1972). The map on page 169 illustrates the Conservation Zones initially sketched out.

A more definitive inventory of natural resources and areas of environmental concern is needed, considering both tangible and intangible human values, especially in the non-urban sectors of the region. The environmental impact inventory (discussed in pages 205 to 214) will help provide a widened data base, offering a means to begin the process of examining detailed Conservation Zone alternatives, and firming up their geographic limits.

Finally, a management program is needed to continually monitor and oversee the implementation of the conservation aspects of the comprehensive plan, making sure that all competing needs, goals and activities are kept in appropriate balance, and orchestrating the efforts of all single-purpose and general-purpose units of government (from local to state to federal) to this end. A new report for the State of Oregon Executive Department and Natural Resources Agencies, An Inventory and Evaluation of Areas of Environmental Concern in Oregon (Battelle, April 1973) provides a suggestive start for such a management program, using the approach of designating priority areas. The priorities recommended state-wide are reproduced on page 175. A similar set needs to be developed for the CRAG region.



# PRIORITY LISTING FOR STATE ACTION ON AREAS OF ENVIRONMENTAL CONCERN

CRITICAL PRIORITY	SECOND PRIORITY	THIRD PRIORITY
<ul style="list-style-type: none"> <li>• Development of Estuarine Management Guidelines</li> <li>• Identification and Protection of Tide Marsh Wetlands</li> <li>• Protection of Beaches and Dunes</li> <li>• Protection of Freshwater Lakes</li> <li>• Expansion of Designated Wilderness Areas</li> <li>• Expansion of Designated Research Natural Areas</li> <li>• Identification and Protection of Outstanding Scenic Areas and Waterways</li> <li>• Identification and Protection of Outstanding Potential Recreation Areas</li> <li>• Identification and Protection of Critical Wildlife Habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Determination of Land-Use Suitability Characteristics</li> <li>• Identification of Geologic Hazards</li> <li>• Development of Flood Plain Management Plans</li> <li>• Retention of Prime Agricultural Land for Agricultural Use</li> <li>• Expansion of Fire Protection Areas</li> <li>• Identification of Smoke Hazard Regions</li> <li>• Continued Allocation of Water Resources for Environmental Purposes</li> <li>• Identification and Classification of Back-Country Areas</li> <li>• Enhancement of Important Wildlife Habitat</li> <li>• Enhancement of Important Fishlife Habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Continued Improvements in Forest Management Practices</li> <li>• Continued Improvement in Range Management Practices</li> <li>• Continued Improvement in Cropland Management Practices</li> <li>• Identification and Protection of Important Geological Areas</li> <li>• Identification and Protection of Important Historical Areas</li> <li>• Identification and Protection of Important Archeological Areas</li> <li>• Identification and Protection of Important Cultural Areas</li> </ul>

Source: An Inventory and Evaluation  
of Areas of Environmental  
Concern in Oregon

## RECOMMENDATIONS

On the strength of the above considerations it is recommended that the CRAG community consider stabilizing the Rural-Residential, Agricultural and Conservation Zones by: (1) placing limits on further parceling or subdivision of the countryside, especially the Agricultural Zones; (2) establishing performance standards to govern land use changes, especially in Rural-Residential Zones, such as for locating vacation homes, recreation service centers, and other resource-oriented activities; (3) re-assembling designated parcels into workable-size tracts for rural and resource uses, through the use of the proposed regional revolving fund; (4) negotiating for development rights, purchase and lease-back and purchase and sale-back with restrictions, in accordance with comprehensive plan objectives for each of the regional zones; and (5) completing a comprehensive environmental inventory to be used as the basis for firming up the boundaries of the zones and determining priorities of environmental concern for resource management purposes.

Men did not make the earth.....It is the value of the improvement only, and not the earth itself, that is individual property..... Every proprietor owes to the community a ground rent for the land which he holds.

-- Tom Paine (1737-1809)

Ground rents are a species of revenue which the owner, in many cases, enjoys without any care or attention of his own. Ground rents are, therefore, perhaps a species of revenue which can best bear to have a peculiar tax imposed upon them.

-- Adam Smith (1723-1790)

Suburban land would have little value if someone did not spend millions of dollars to build roads and highways and make it accessible, water and sewer lines to make it habitable, and schools and other community facilities to make it livable.....The big profit in land speculation comes when the speculator can take the gains and get the bill paid by someone else-- other tax payers and/or future owners.

-- House & Home (Aug. 1960)

## 6. Revision of the Property Tax System

Most of the homebuilders' community facilities problems would be eased if raw land were taxed more heavily, so that more of the cost of improved facilities would be paid by the landowners whose land prices are multiplied by the improvements.

-- House & Home Round Table (Jan. 1960)

Talk about inflation...

## Out-of-balance property taxes jump 540 per cent in 23 years

By HERMAN KEHRLI

DESPITE the development of other important sources of revenue, property tax levies in Oregon have increased from \$50 million in 1930 to about \$200 million this year.

The property tax has become overloaded in Oregon and too much of it has been shifted to homes and small businesses. It should be substantially reduced, and at the same time steps should be taken to improve its operation.

The property tax will continue to be an important source of revenue for a long time. Local agencies must have a steady source of revenue without which they cannot function. Dr. Harold M. Groves has pointed out that despite the theoretical weakness, the practical strength of the property tax "has proved a reliable source of revenue for local governments and that it has not been replaced by any other source of revenue."

But the property tax is one of the most out-of-balance taxes in the country. It has increased 540 per cent in 23 years, while other taxes have increased only 100 per cent.

It is obvious that utilities and timber property are the most heavily taxed. An office building, a house, or land that is owned by a public utility may be taxed on an entirely different basis than an adjacent office building. How, or how? Should the complete exemption of the automobile be continued? The automobile is on the property tax roll of many states and is today the boundary of many property tax problems. It is a tax reduction policy to grant a tax reduction to timber owners without making such reduction contingent on proof of forestry practices. While a good idea, it can be made for timber owners on a different basis.

all inventory and livestock from the property tax if the differences between the inventories of jewelers and grocers and cattle growers were recognized. There are problems and here we have every class of property that should be taxed.

The objective should be to reverse the trend of the tax base while making the impact of the tax more equitable. This is a long range and almost continuous program, there are two major changes that could and should be made.

A nationwide public opinion poll conducted for the Advisory Commission on Intergovernmental Relations in the spring revealed that 41 per cent of the people interviewed favored a "property tax freeze."

most important change that could be made in the property tax would be to base it on a different basis than on the present basis of the value of the property. The taxation of the value of the property in urban areas would not only greatly strengthen the base of the property tax but it would also contribute to improved land use.

A nationwide public opinion poll conducted for the Advisory Commission on Intergovernmental Relations in the spring revealed that 41 per cent of the people interviewed favored a "property tax freeze."



## PROBLEMS AND ISSUES

Complaints about property taxes have become staple topics of conversation in American life. With dissatisfaction apparently so widespread and deep-rooted it might seem that reform efforts would have been successful long ago. In Oregon and Washington, however, changes in the property tax system have been slow in coming, endlessly debated, and often as not rejected. Many taxpayers seem resigned to the present property tax system as simply an inevitable burden of civilized society. But there is substance to many of the complaints; and suspicion is mounting that many of our major land use problems -- central city decay, slums, suburban sprawl, loss of prime agricultural land -- may be traceable in part to the very system that funds our schools and other local government services.

## WHAT'S WRONG WITH THE PRESENT SYSTEM?

In 1951, the Oregon Legislature authorized an ambitious effort by the State Tax Commission to work with counties on a long-range program "to secure equalization of assessments to the end that all taxpayers will pay only a just and equitable share of the tax burden." This was an explicit recognition of deficiencies in the system, and a charge to the State Tax Commission to remedy them. Whatever may have been the accomplishments of this program (and there have been many), the Legislature that convened twenty-two years later in January 1973 still faced the same problems, now writ much larger: a property tax system that not only continued to be widely regarded as inequitable, even confiscatory, but one also unable to keep pace with the spiraling costs of local government and schools.

Another potentially significant issue also arose in the intervening years. Litigation in California and Texas (the Serrano and Rodriguez cases) raised the spectre that local property taxes might be an unconstitutional means of funding schools. Court opinions in these cases held that the uneven quality of educational facilities resulting from property tax revenue disparities violates constitutional guarantees of equal protection. Even though the U.S. Supreme Court subsequently reversed this contention, the Serrano and Rodriguez decisions spurred many state legislatures in 1973, including Oregon and Washington, to re-examine their property tax systems and seriously consider drastic reform.

Governor McCall offered the 1973 Legislature a sweeping reform of Oregon's tax system. In substance, he proposed an end to the funding of local school districts by property tax revenues derived from homeowners or renters, replacing them by increases in other revenue sources, principally taxes on personal income, income producing real property, and other business activity. In a word, the proposal would have virtually abandoned the property tax system as a revenue source for local public education. The McCall Plan passed the Legislature only to be defeated at the polls. The Plan's major premise seemed to be that something was so fundamentally wrong with the property tax system as to justify its abandonment to a major degree.

The idea that the property tax system is next-to-unworkable seems to have gained credence from many frustrating years aspiring to goals such as those set by the 1951 Oregon Legislature. Twenty years ago the principal reform objective was "equalization of assessments," which has come to be interpreted as improving the way taxable values are determined so that the tax rolls accurately reflect the most current value of the property being taxed. Except for the issues raised by the Serrano and

Rodriguez cases, there has been surprisingly little questioning of the system itself. But it is a system that -- almost in Alice-in-Wonderland fashion -- penalizes homeowners for maintaining their homes in sound condition and confers benefits on those who permit them to lapse into disrepair.

Practically everywhere in the U.S., property tax systems tend to undertax idle or underused land and speculative profits, while heavily taxing costly improvements or structures and the profits of development and homebuilding. In effect, they are designed to draw taxes most heavily from real estate values created by individual or corporate effort, initiative and investment (i.e., improvements) and least heavily from the kind of real estate the owner did little or nothing to create (i.e., unimproved land), the value of which was created largely by the efforts, initiative and investment of the entire community. Initiative is harnessed backwards; and past legislative "reforms" have merely called for more efficiency in this practice.

This curiously conceived system to raise money for schools and local government -- really two taxes combined and confused -- has an important bearing on the use of every parcel of land to which it is applied. The same 1973 Legislature that passed the McCall Tax Plan, debated and passed a state-wide land use planning act (SB 100) seemingly with little recognition that the issues of property taxes and land use are inextricably interrelated. Some of the results of the present property tax system are the very land use and environmental problems of concern in this report. For example, the property tax system bears a significant part of the responsibility for:

- Run-down housing that is more profitable to rent than replace or rehabilitate.

- Artificial shortages of close-in building sites that are withheld from the market in hopes of long term speculative profits.
- Developers and homebuilders, forced to scramble for cheaper outlying building sites, leapfrogging into the rural countryside and consuming agricultural land.
- Inflated land prices and resultant higher housing costs.
- Sluggish redevelopment or renewal of central city areas, requiring public intervention in the form of subsidies or renewal programs.

#### REGIONAL GOALS

Planning goals adopted by the CRAG Executive Board recognize the interrelationships between land use and taxation. The portions of the newly adopted goals statement relevant to these problems and issues in the present property tax system are as follows:

- REGIONAL GROWTH GOAL

... during the interim period ... we will do everything possible to 1) conserve our non-renewable resources ... Our program of physical planning for the region will include activities to identify, test and possibly support measures designed toward these ends...

- URBAN-RURAL DIFFERENTIATION GOAL

... to seek ways that our existing tax system might be changed to support our regional growth, settlement and urban growth containment policies.



## ● LAND USE GOALS

Provide a conservation and development framework which (1) promotes self-renewal within the physical and social-economic environments and (2) which contains a high degree of adaptability in the face of unforeseeable change ...

Promote re-vitalization of the older and declining parts of the urban region, in accordance with the comprehensive plan, in order (1) to reduce urbanization pressures on areas which should remain undeveloped ...

Encourage new construction in accordance with the comprehensive plan on bypassed vacant lots ...

Promote preservation of valuable agricultural and forest soils and areas; ... search for changes in taxation and property assessment systems which will help to implement this and all related goals and policies.

## TURNING THE PROPERTY TAX SYSTEM AROUND

Can the property tax system be turned around to support these adopted regional goals? Can it be turned around to work with instead of against private initiative? Can it be made to support rather than undermine well-maintained, self-renewing urban communities? Is it possible that the system could produce public revenues more in line with changing community needs without intolerable property tax burdens for the homeowner, renter, or businessman alike? To answer such questions with an unequivocal "yes" is probably more than simple prudence would allow. Still, property tax systems evolved in Australia, New Zealand, South Africa and western Canada from as far back as 1890 suggest that there are ways to achieve a more positive, workable system -- short of abandoning the property tax altogether.

The key to the Australian and New Zealand approaches has simply been "untaxing" of improvement values accompanied by a shift to greater or even exclusive taxation of land or site values. Over a decade ago, a major U.S. homebuilding-industry publication (House & Home, August, 1960) advocated site-value taxation as an answer to mounting inflationary pressures on land prices. Its position was based on a consensus of topflight economists, mortgage lenders, realtors, homebuilders, and manufacturers who concluded that:

Taxes are the only important costs a land speculator must pay, so taxes are the only break on the price of land, which reflects the capitalized margin between the rent the land can be expected to earn and the tax burden it can expect to carry. The bigger the land tax the smaller this margin will be and the less chance of his profits in land speculation . . .

Taxing land more heavily would make the unearned increment in suburban land values pay the cost of schools and other community improvements needed to convert raw land into housing.

Taxing land more heavily would reduce the taxes on good homes by increasing the taxes on vacant and under-used land.

The same theme was sounded in the March, 1969 issue of Nation's Cities, publication of the National League of Cities, when it observed:

. . . the property tax on which local governments depend for 87 per cent of their tax revenue could be one of the wisest and fairest of all taxes; but as most cities apply it today it may well

be the very worst -- a weird combination of overtaxation and undertaxation, an incentive tax for what we don't want and a disincentive tax for what we do want.

A Roundtable Conference convened under the auspices of the National League of Cities with representation from organizations as diverse as the U.S. Chamber of Commerce, the National Association of Counties, the U.S. Conference of Mayors, and the National Association of Manufacturers, among others, reached a consensus on seven reasons that unimproved location value of urban and suburban land should be taxed much more heavily:

- Quite simply, to help pay the cost of local government, including the cost of all the tax-paid improvements that make the location valuable.
- To offset the cost of untaxing improvements. Local governments depend on property taxation for nearly 87 per cent of their local revenue, so the only way they can afford to tax improvements less is to tax unimproved land values more.
- To slow down the pace of land price inflation.
- To exert heavy pressure on the owners of underused and misused land (including most specifically slums) to put it to better use now instead of waiting for further subsidies and further investments of other peoples' money to raise its price still higher (land speculators call this "waiting for it to ripen"). With land prices for building soaring 8 to 15 per cent a year, millions of idle acres are now so underassessed and undertaxed that the owner can hold \$1 million worth off the market for a property tax cost of as low as \$5,000 a year, with up to 77 per cent of that \$5,000 deductible from his federal income tax.

- To let cities expand in an orderly manner instead of disintegrating in suburban sprawl and premature subdivision, with millions of close-in acres held off the market for speculation, thereby forcing homebuilders to leapfrog further and further out into the countryside to get land they can afford to build on and forcing industry to move further and further away from urban employment (and unemployment) centers to find enough land they can afford on which to build new plants.
- To save the tax waste of sprawl, which multiplies the cost of roads to reach sprawl-scattered homes, multiplies the cost of water distribution, multiplies the cost of mass transportation, inflates the cost of police and fire protection, and doubles the cost of getting children to and from school.
- To stop and perhaps reverse the futile spiral in which the multi-billion-dollar urban renewal subsidies are being capitalized into higher urban renewal land costs calling for bigger urban renewal subsidies that will in turn be capitalized into higher land costs requiring still bigger subsidies (land write-down subsidies, below-market-interest subsidies, tax exemption subsidies, or perhaps some new kind of subsidy).

These reasons translate directly into a property tax system that would reward initiative, stimulate the market availability of close-in buildable land, encourage private (instead of public) renewal, and draw public revenues from a source hitherto taxed in only a minor way, namely, the site-value increases that result from the investment and initiative of the entire regional community, including the investment of federal state and local governments in public facilities. Such reform is clearly of sufficient magnitude to require legislative action. With full recognition of the difficulties any reform proposal might face,

the following pages nevertheless explore general aspects of how such a system might work if applied in the CRAG Region.

#### A SITE-VALUE TAX IN URBAN ZONES

The application of site-value tax principles to the CRAG area would call for a shift to site-value taxation specifically where the regional land use plan proposes urban development. In other words, the change-over would be limited to the regional zones in which urban growth (renewal, redevelopment, or conversion of open land to urban use) is to be stimulated or encouraged.

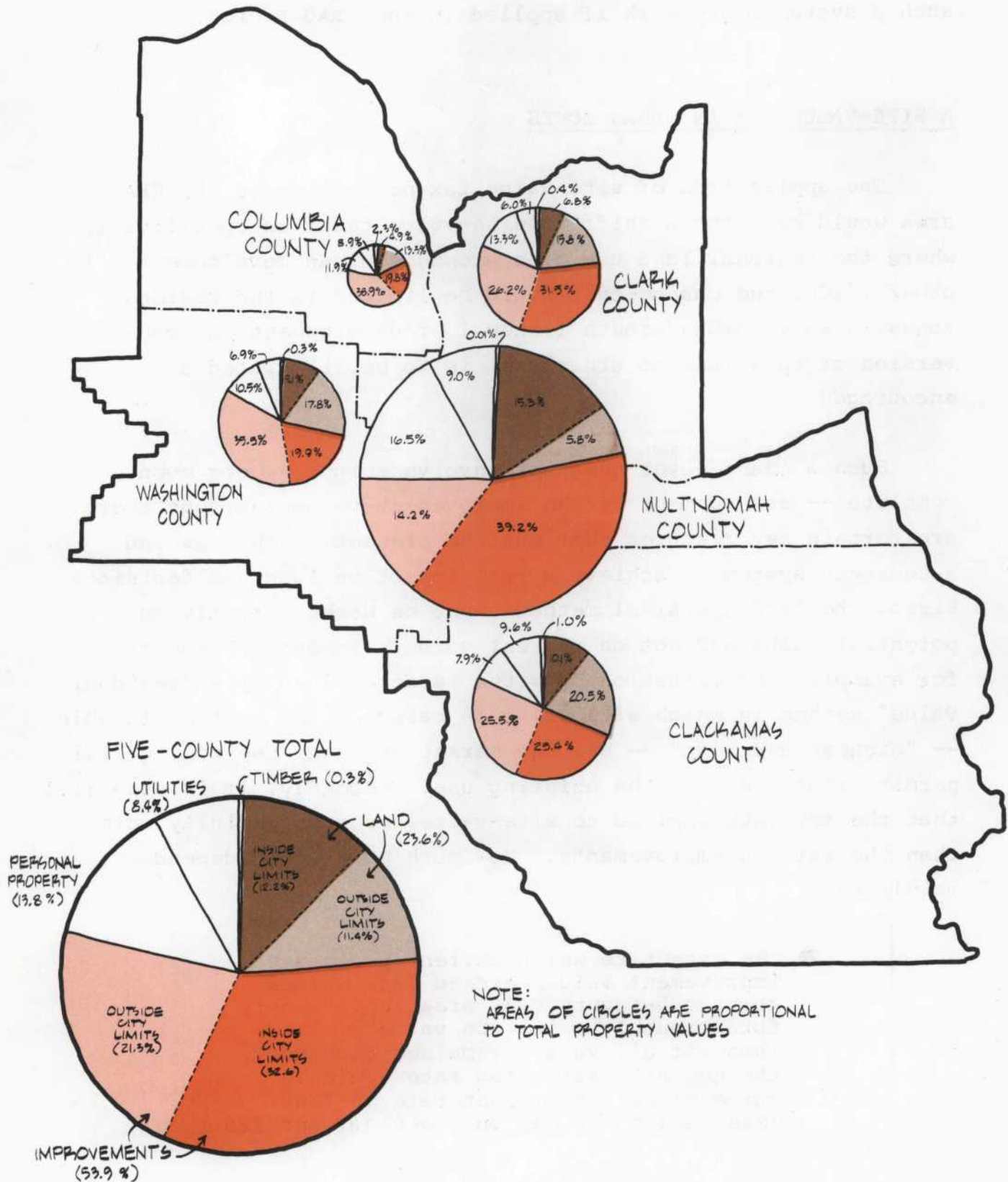
Such a change-over need not involve abrupt -- nor even complete -- abandonment of the improvement-value tax; but there are certain key features that must be present in the tax and assessment system to achieve a real impact on land use decisions. First, the land appraisal methods must be based strictly on potential value and not on current value. In Sydney, Australia, for example, the valuation of sites is determined by a "residual value" method in which site value is based on the most profitable -- "highest and best" -- use the market and land use zoning will permit, regardless of the existing use. Secondly, it is essential that the tax rate applied to site-values be substantially more than the rate on improvements. How much more would depend mainly on:

- The extent to which currently assessed improvement values exceed land values. For the 5-County CRAG area improvements total roughly twice the value of land; thus, if all values remained unchanged, the new site-value tax rate would be three times the current rate on land. (See tables and map on pages 188 and 189.)



# ASSESSED PROPERTY VALUES

## Fiscal Year 1969-70



- The extent to which higher land taxes would devalue taxable land values. Increasing the tax on site-values will lower the value of some sites, thus reducing their revenue productivity and requiring a higher overall rate than would otherwise be necessary if values remained unchanged.
- The extent to which lower improvement taxes would enhance the value of taxable improvements. Some improvements will be made more valuable by lower taxes, resulting in increased revenue productivity that would tend to offset the need for higher land tax rates.
- The way in which assessors distinguish land and improvement values on improved property. Urban land generally appreciates in value; that is, the value of location increases as population and economic opportunities increase. Relative to land, buildings decrease in value due to age and obsolescence. If the overall increase in property value is assigned to the land, the tax rate increase on the land, given site value taxation, could be small. If, on the other hand, the assessor assigns any of the increase in property value to the improvements, the rate on land would have to be higher.

These considerations need more investigation to iron out the details and mechanics of shifting to site-value taxation; but they pose no fundamental objections to the basic concept.

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RATIOS OF IMPROVEMENT VALUES TO LAND VALUES  
in CRAG Counties 1969-70 Fiscal Year

INSIDE CORPORATE LIMITS	CLACKAMAS	CLARK	COLUMBIA	MULTNOMAH	WASHINGTON	REGIONAL AVERAGE
	2.5	4.6	4.1	2.6	2.2	2.5
OUTSIDE CORPORATE LIMITS	1.2	1.7	2.9	2.4	2.0	1.9
						<u>OVERALL RATIO 2.3</u>

Site-value taxation is not a panacea. Problems which must be recognized and dealt with concern questions of equity and possible conflict with other community planning goals:

- The Question of Equity - If current-use value of a site is temporarily greater than its redevelopment potential-use value, the owner may find himself in a position where land taxes are rising but without a parallel increase in income from the property. Until the site's potential value reaches redevelopment status the owner is undeniably in a financial dilemma: profits will decline with no immediate opportunity to sell or redevelop. In the case of the Sydney central business district this problem is reported to have been experienced by large downtown retail department stores. (ULI Research Report, Site Value Taxation in CBD Redevelopment, Sydney, Australia, 1972). Homeowners on sites potentially valuable for non-residential use may also face essentially the same dilemma. It is difficult to generalize on the point at which such conditions become inequitable. But, once such a determination is made, the only remedy is some form of exemption or subsidy (which tends to undermine the basic purpose of site-value taxation). The public policy question is at what point inequity justifies intervention in the form of exemptions or subsidies.
- The Question of Conflicting Planning Goals - Site-value taxation unquestionably has the potential of forcing the development or redevelopment of some sites which might conflict with other community planning goals. Privately owned structures of historic or architectural merit would come under severe pressure for demolition; there is the spectre of development at densities excessive for local service capacities; the possibility exists of over-development at the expense of private open space, diversification, and other community amenities; preservation of specialized land use functions such as department stores in the CBD could be jeopardized. In effect, site-value taxation

in the urban zone would place a high premium on skillful, effective city planning and design: advance acquisition of needed public open space, sites for public facilities, and programs to preserve historic buildings or sites would become more critical than ever; density limits would have to be set and strictly adhered to; land use plans would have to be explicit enough that conflicting effects of the site-value tax could be detected and alleviated.

Aside from drawing on the experience of cities which employ site valuation (such as Sydney, Australia), modern computer techniques now offer a means of studying in objective measurable terms the implications, problems, mechanics and side-effects of a shift to site value taxation. The impact of such a shift on the CRAG region can only be identified in theoretical and conjectural terms at this time. Application of site value taxation to the CRAG region through computer simulation would permit quantification of positive and negative impacts. These impacts could then be weighed against the monumental conflicts that now exist between the land use planning goals adopted by CRAG and our present property tax system, and against the many inequities of the present system.

#### AN IMPROVEMENT-VALUE TAX IN NON-URBAN ZONES

The counterpart of a site-value tax in urban zones would be to move towards "untaxing" land in non-urban zones. This is equivalent to reversing the site-value principle, making it work to decelerate the conversion of rural lands to urban use by easing the tax pressure on them. Shifting taxes to improvements - particularly these of a non-agricultural nature -- would make the rural countryside less inviting for scattered urban development.

In the last decade or so, legislatures in both Oregon and Washington have adopted measures that seek to reduce or defer high land taxes on agricultural or other rural open lands. These approaches were ostensibly intended to stem the tide of suburban land conversion -- creating city-encircling "greenbelts" -- by offering the land owner a preferentially lower assessment as long as the land is kept off the urban market. The success of these measures had generally been less than impressive, often merely deferring the "inevitable." When high-priced offers are coupled with declining farm income the rural land owner not surprisingly will consider selling, even if it means loss of the preferential assessment and repayment of back taxes based on high values. This would be much less the case if site-value taxation in urban zones increased the availability of vacant urban land and thereby accomplished a reduction in the market pressures for subdividing outlying rural lands. But measures to defer taxes on agricultural lands would be made unnecessary altogether by a shifting of taxes from land to improvements.

#### EXTRAORDINARY OR "WINDFALL" REAL ESTATE CAPITAL GAINS

It is often argued that extraordinary profits resulting from changes in surrounding land use or made possible by public action or investment somehow should be "recaptured" or returned to the public coffers. Special taxes on real estate transactions, for example, have been discussed in this connection. If the tax reform outlined in the preceding pages were implemented, however, the need for such special taxes would largely be obviated. Unusually large increases in real estate values would still occur, but primarily in land values in urban zones where the increased site-value would then be taxed to effectively "recapture" much of this "unearned increment." On the other hand, the large speculative profits now generally believed to occur on non-urban



lands likely would be ended, since the combination of non-urban zoning and taxation of structures would minimize the speculative value in rural land. A special gains tax to capture extraordinary profits resulting from changes in land use made possible by public actions or investments therefore should be considered as a possible alternative to site value taxation, but not as a complementary measure.

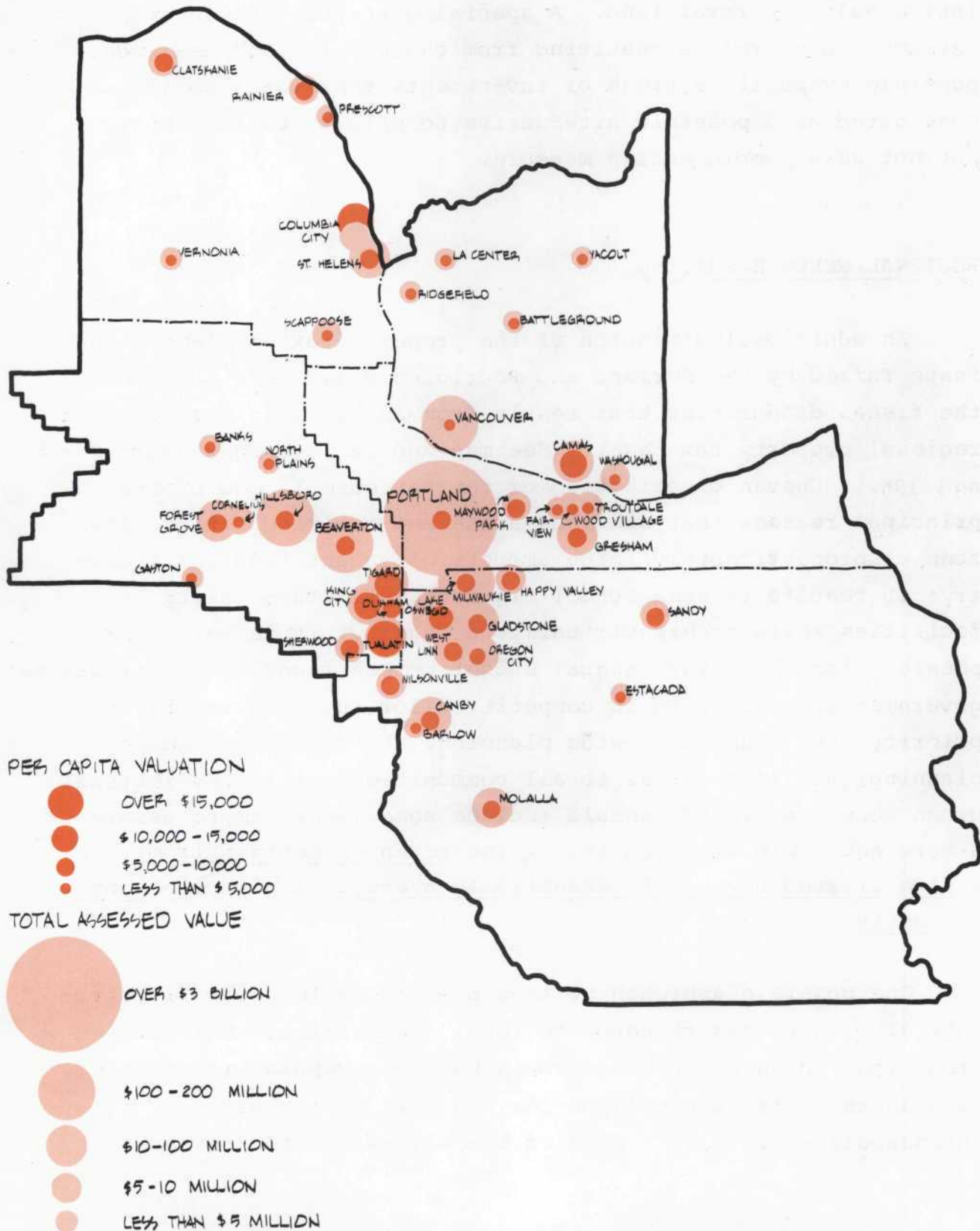
#### REGIONAL REVENUE SHARING

An additional dimension of the property tax problem is the issue raised by the Serrano and Rodriguez cases (see p. 180): the fiscal disparities that result from an unevenly distributed regional property tax base. (See map and table, pages 194 and 196.) Uneven distribution of the tax base is one of the principal reasons that suburban areas and outlying cities often zone disproportionately large amounts of vacant land for industry; it results in some school districts with top-quality facilities while others virtually go begging; it is partly responsible for the severe annual budget crises faced by some local governments; it results in competition for tax base receiving priority over sound area-wide planning. To facilitate good planning, and in fairness to all communities within the regional urban zone, tax reform should include some mechanism to assure a more equitable distribution of the revenues derived from the wealth created by what is essentially a single regional economic community.

One possible approach to this problem would be to redistribute site-value tax revenues to local communities within the urban zone on an equitable formula based on population and need, such as the formula developed for the Twin Cities area (Minneapolis-St. Paul). Some of the site-value tax revenues

# MUNICIPAL PROPERTY VALUES

## Fiscal Year 1969-70



should also be ear-marked to fund urban-wide projects such as sewage treatment plants, transit systems, major storm drainage facilities, open space or historic preservation, regional parks, etc., thus relieving local governments of the nearly impossible financial burdens such expensive endeavors usually impose.

#### RECOMMENDATIONS

On the basis of the above analysis it is recommended that within the regional Urban Zones outlined in point three of the proposed Six-Point Program, the CRAG community consider the desirability of gradually shifting the property tax away from taxation of land and improvements and toward site value taxation (i.e. "untaxing" improvements), in order to promote development and renewal by the private market. Outside the Urban Zones the gradual shifting of the tax primarily to improvements should be considered. If the initial response to these proposals is favorable, a computer analysis should be authorized to determine impacts on various classes and values of real property in different locations. Devising of a special gains tax to capture extraordinary profits resulting from changes in land use made possible by public actions or investments should be considered as a possible alternative to site value taxation. Finally, it is recommended that fiscal disparities between jurisdictions be overcome, and regional capital improvements financed, through a regional revenue-sharing formula.

SUMMARY OF  
ASSESSED PROPERTY VALUES  
5-County CRAG Area  
Fiscal Yr. 1969-70  
(Millions of dollars)

	<u>Clackamas</u>	<u>Clark*</u>	<u>Columbia</u>	<u>Multnomah</u>	<u>Washington</u>	<u>5-County CRAG Area</u>
<u>LAND</u>						
Inside Corporate Limits	129.4	63.0	11.5	670.1	112.2	986.2
Outside Corporate Limits	262.8	146.4	31.6	256.2	219.4	916.4
Total Land Value	392.2	209.4	43.1	926.3	331.6	1,902.6
<u>IMPROVEMENTS</u>						
Inside Corporate Limits	325.7	292.0	47.1	1,722.8	245.8	2,633.4
Outside Corporate Limits	326.1	242.2	92.5	621.5	437.9	1,720.2
Total Improvement Values	651.8	534.2	139.6	2,344.3	683.7	4,353.6
<u>TIMBER</u> (excluding land)	13.1	3.8	5.5	0.7	3.1	26.2
<u>EXEMPTIONS</u> (reducing assessed values)						
Veterans	11.0	---	2.4	52.4	9.8	75.6
Senior Citizens	4.6	---	1.6	28.7	3.5	38.4
Total	15.6	---	4.0	81.1	13.3	114.0
<u>TAXABLE REAL PROPERTY</u>	1,041.5	747.4	184.2	3,190.2	1,005.1	6,168.4
<u>TAXABLE PERSONAL PROPERTY</u>	101.7	122.9	28.3	725.0	130.0	1,107.9
<u>UTILITIES</u>	122.2	55.2	21.0	393.8	85.8	678.0
<u>TOTAL TAXABLE PROPERTY</u>	1,265.4	925.5	233.5	4,309.0	1,220.9	7,954.3

\* Clark County's fiscal year is the calendar year; data is for FY 1970.

Sources: Dept. of Revenue, State of Oregon; Clark County Assessor's Office.

# MUNICIPAL PROPERTY VALUES & TAXES

## Assessed Values & Property Tax Levies per Capita in CRAG Area Cities Fiscal Year 1969-70

	1970 Population	Per Capita Valuation	Per Capita Tax City*	Per Capita Tax Consolidated**
<u>CLACKAMAS</u>				
Milwaukie	16,444	\$ 8,350	\$38	\$239
Lake Oswego	14,597	10,471	54	322
Oregon City	9,176	9,664	69	335
West Linn	7,091	9,610	52	289
Gladstone	6,254	5,526	23	162
Canby	3,813	6,040	34	180
Molalla	2,005	5,570	46	183
Sandy	1,544	6,287	62	237
Happy Valley	1,392	8,562	--	231
Estacada	1,164	4,162	35	146
Wilsonville	1,001	9,150	--	246
Barlow	105	4,227	4	108
(Note: Johnson City and Rivergrove were incorporated after 1970)				
<u>CLARK</u>				
Vancouver	42,493	4,153	36	NA
Camas	5,790	11,278	78	NA
Washougal	3,388	2,922	17	NA
Battleground	1,438	3,129	23	NA
Ridgefield	1,004	3,286	24	NA
Yacolt	488	1,434	11	NA
La Center	300	2,000	14	NA
<u>COLUMBIA</u>				
St. Helens	6,212	5,423	23	137
Scappoose	1,859	4,982	21	148
Rainier	1,731	6,759	29	217
Vernonia	1,643	2,545	14	63
Clatskanie	1,286	7,588	27	175
Columbia City	537	16,242	11	352
Prescott	105	1,733	4	53
<u>MULTNOMAH</u>				
Portland	379,967	8,450	84	264
Gresham	10,030	7,812	14	224
Troutdale	1,661	3,909	21	140
Wood Village	1,533	3,786	8	124
Maywood Park	1,305	5,813	--	189
Fairview	1,045	3,536	13	121
<u>WASHINGTON</u>				
Beaverton	18,577	9,557	27	280
Hillsboro	14,675	7,197	23	204
Forest Grove	8,275	5,770	20	179
Tigard	5,302	10,682	16	290
Cornelius	1,903	4,900	14	149
King City	1,427	11,813	--	301
Sherwood	1,396	7,287	37	221
Tualatin	750	18,839	6	481
North Plains	690	4,270	7	123
Banks	430	3,128	17	93
Gaston	429	4,606	58	174
Durham	410	5,993	--	157

\* Taxes levied within cities for municipal purposes only.

\*\* Taxes levied within cities for all purposes, including: municipal and county operations; debt repayment; schools; port districts, etc. Data not available (NA) for Clark County.

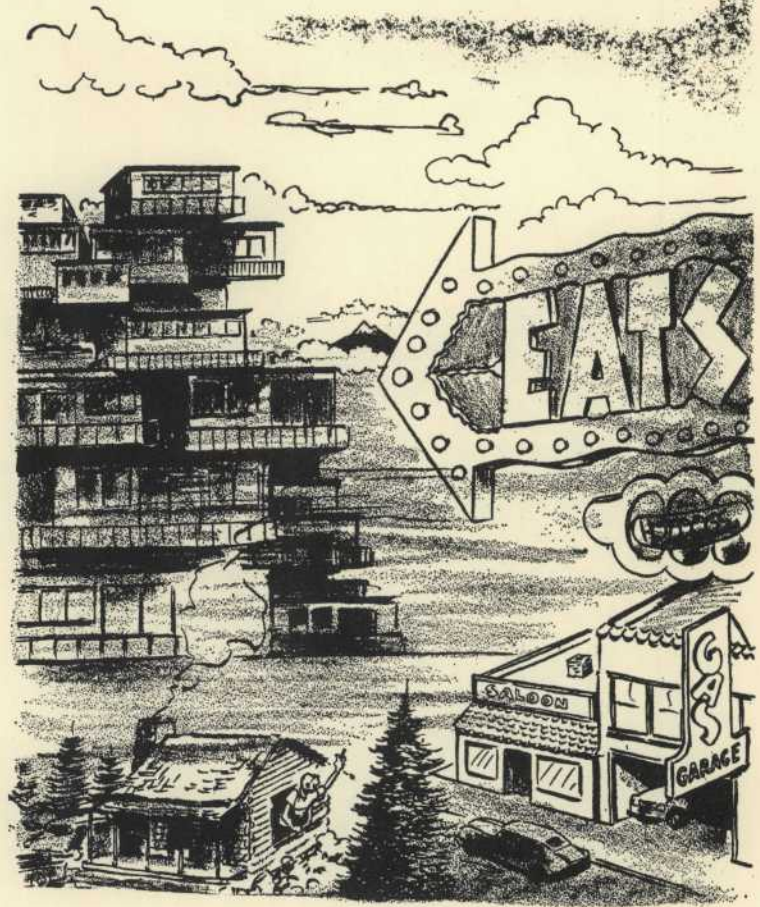
Note: Wide variations also exist throughout unincorporated areas due to the myriad of overlapping special districts.

Sources: Department of Revenue, State of Oregon; Clark County Assessor's Office.





*Look, You Can See The Mountain Today!!*



PART V  
ENVIRONMENTAL IMPACT  
OF THE SIX POINT PROGRAM

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## ENVIRONMENTAL IMPACT OF THE SIX POINT PROGRAM

### PROBLEMS AND ISSUES

Evaluating the environmental consequences or impact of community development decisions is becoming a recognized part of the planning process. This has been due in large part to the mounting evidence that too many decisions have already been made without sufficient regard for the limits of our natural resources and conditions. Fitting human settlement to the landscape so that natural processes are not seriously disrupted is a big order even in small, pre-industrial communities; for the modern-day industrial metropolis the difficulties are at a scale faced by no previous civilization. From the busiest downtown street to the most remote mountain meadow, today's mechanized city-dweller treads heavily on the land.

At the same time, more people than ever express alarm and concern about the negative environmental impacts of the ethic that has fueled the Nation's growth. Sometimes described as the emerging attitudes of a "post-industrial" society, these views collide with the notion of "material progress" still held to be inevitable by many and essential by some. Reconciling these seemingly contradictory currents of economic aspiration and environmental concern has thus become a major national preoccupation.

### THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

Passage of the National Environmental Policy Act of 1969

(Public Law 91-190, NEPA) was a major congressional effort to spell out national goals and policies in matters of environmental quality. In addition to creating a Council on Environmental Quality, the Act strongly emphasizes the need to evaluate and consider the environmental impact of programs or project proposals early in the planning stages. The Act stresses utilization of a "systematic, interdisciplinary approach," as well as requiring "that presently unquantified environmental amenities and values . . . be given appropriate consideration in decision-making along with economic and technical considerations." An important requirement of the Act stipulates that there be included "in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

The Environmental Impact Statement (EIS) has thus become a key factor in Federally funded programs and projects. The Six-Point Program outlined in this report will have an affect on environmental quality. That impact, too, must be evaluated and considered to assure that the aims of NEPA are met, and that, more importantly, the benefits to environmental quality resulting



from the Six-Point Program are recognized.

#### EVALUATING ENVIRONMENTAL IMPACT OF THE SIX-POINT PROGRAM

Compared to the environmental impact of highways, dams, and other such individual projects, the impact of a multi-faceted regional comprehensive plan is a vastly more difficult thing to assess. Nevertheless, an overall assessment is critical if the planning program is to avoid merely dealing with impacts on a project by project basis. Certainly the avowed intent of the Program is improvement of environmental quality. But, what are the Program's real consequences for the environment? Do they really measure up to the good intentions? How can such impacts even be ascertained?

A first step toward finding answers is the creation of broad categories that define aspects of the environment that would be impacted. In the broadest sense, there are both natural (non-cultural) and human (cultural) components of the environment, and even though they are closely enterrelated they need to be separated for purposes of analysis. These two broad categories, together with further breakdowns into respective sub-categories, are outlined below:

##### ● NATURAL ENVIRONMENT

Geologic & Physiographic - impact on mineral resources and their conservation; avoidance or amelioration of geologic hazards or limitations of the land's surface.

Hydrologic - impact on water resources and their conservation; avoidance or reduction of water pollution, flood and drainage hazards.

Meteorologic & Climatic - impact on weather-  
or climate-related conditions; avoidance  
or reduction of air pollution.

Vegetation & Soils - impact on forest and soil  
resource conservation.

Wildlife & Fisheries - impact on wildlife and  
fisheries resource conservation.

● HUMAN ENVIRONMENT

Demographic - impact on population growth,  
distribution and density, and their  
relationships to all aspects of the  
natural environment outlined above.

Socioeconomic - impact on income, employment,  
ethnic patterns, housing supply, land  
tenure, various interest groups, minority  
groups, and community identity.

Municipal Services - impact on revenues and  
costs, quality and availability of utility  
service, police, fire protection, and other  
municipal services.

Existing & Potential Land Use - impact on present  
expectations that existing land use patterns  
will not change drastically and that expect-  
ations of potential use (e.g. present land  
use zoning) can be relied upon.

Transportation - impact on revenues and costs  
and the feasibility of diversifying trans-  
portation modes.

Unique Areas or Sites - impact on preservation  
of historic, scenic, or other unique features.

Visual Appearance - impact on aesthetic quality  
and improved urban design.

Noise - impact on noise levels and efforts to  
reduce noise as a factor in environmental  
pollution.

A full-scale, detailed statement of the Six-Point Program's

impact in each of these areas is beyond the scope of the present work. Resources to undertake a "systematic, interdisciplinary approach" to evaluate each of the sub-categories listed have been meager. Nevertheless, sufficient generalized data have been assembled in previous work (Planning in the CRAG Region: An Appraisal and New Direction, 1972) to sketch out a "best present estimate" of the probable impacts of the Six-Point Program. Judgements of probable impact have been made using the following scale of values:

- BENEFICIAL - major potential for improved environmental quality.
- NEGLIGIBLE - little impact on environmental quality.
- DETRIMENTAL- some potential for quality decline or disruptive effects, but mitigatable.
- DAMAGING - major potential for quality decline; less would be irreparable.

In measuring the Program with this scale of values, no definitive impact statement is intended, but rather an hypothesis -- admittedly judgmental and conjectural -- to be subjected to systematic verification as elements of the program are more sharply defined and environmental data improved. The table on page 206 lists these tentative judgements in matrix form.

#### SYSTEMATIC ENVIRONMENTAL ANALYSIS

Since the judgments spelled out in the table on page 206 may be easily disputed, some empirical means to test them is needed. While work on such a system is not yet complete, enough progress has been made to describe its general outlines.

In the last several years much attention has been focused on

# PROBABLE IMPACTS OF THE SIX-POINT PROGRAM ON ENVIRONMENTAL QUALITY

- BENEFICIAL - MAJOR POTENTIAL FOR IMPROVED QUALITY
- ◉ NEGLIGIBLE - LITTLE IMPACT
- ◐ DETRIMENTAL - POTENTIAL LOSS OR DISRUPTION, BUT MITIGATABLE
- DAMAGING - MAJOR POTENTIAL LOSS, IRREPARABLE

## IMPACT ON THE NATURAL ENVIRONMENT

	ELEMENTS OF THE 6-POINT PROGRAM						ALTERNATIVES	
	1 ADHERENCE TO INTERIM REGIONAL DEVELOPMENT POLICY	2 POPULATION GROWTH GUIDELINES	3 ESTABLISHMENT OF REGIONAL ZONES & REVOLVING FUND	4 DEVELOPMENT PROGRAM FOR URBAN ZONES	5 RESOURCE MANAGEMENT & DEVELOPMENT PROGRAM FOR NON-URBAN ZONES	6 REVISION OF THE PROPERTY TAX SYSTEM	INTERIM REGIONAL PLAN	"BUSINESS AS USUAL"
GEOLOGIC & PHYSIOGRAPHIC	◉	○	○	◉	○	◉	◉	●
HYDROLOGIC	○	○	○	○	○	◉	○	○
METEOROLOGIC & CLIMATIC	◉	○	○	○	○	◉	◉	○
VEGETATION & SOILS	◉	○	○	○	○	◉	●	●
WILDLIFE & FISHERIES	◉	○	○	◉	○	◉	●	●
IMPACT ON THE HUMAN ENVIRONMENT								
DEMOGRAPHIC	◉	○	○	○	○	○	◉	●
SOCIOECONOMIC	●	●	○	○	◉	○	◉	◉
MUNICIPAL SERVICES	○	○	○	○	○	○	●	●
EXISTING OR POTENTIAL LAND USE	●	●	●	●	●	●	◉	◉
TRANSPORTATION	○	○	○	○	◉	○	◉	●
UNIQUE AREAS OR SITES	◉	○	○	○	○	●	●	●
VISUAL APPEARANCE	◉	◉	○	○	○	●	◉	●
NOISE	◉	○	◉	◉	○	◉	●	●

NOTE: THE JUDGMENTS LISTED IN THIS MATRIX ARE NOT TO BE CONSTRUED AS DEFINITE IMPACT STATEMENTS, BUT RATHER HYPOTHESES TO BE SUBJECTED TO SYSTEMATIC VERIFICATION - SEE TEXT.

devising means to improve the ecological adjustment of human settlements to their site resources. The issues are as old as cities themselves, but modern writers such as Ian McHarg, Barry Commoner, and Lewis Mumford, to name a few, have explored and exposed the particularly difficult situation faced by present-day industrial societies. McHarg, for example, has advocated a community planning approach that utilizes a systematic inventory of natural and human resources -- quantified and/or mapped and evaluated -- so that decisions can be formulated to fit the envelop of the natural world as well as the inherited man-made environment. In his book Design with Nature, McHarg asserts that:

If one accepts the simple proposition that nature is the arena of life and that a modicum of knowledge of her processes is indispensable for survival and rather more for existence, health and delight, it is amazing how many apparently difficult problems present ready resolution.

Since the "arena of life" is vast and complex, adapting this philosophy to the purposes of systematic environmental analysis must perforce begin modestly. A good start is nevertheless possible with the compilation of an open-ended inventory of natural factors for which data are most readily available. Region-wide natural resource data have thus far been explored and/or assembled (mostly in mapped form) for the factors outlined on pages 208 and 209 following.

A much more difficult task awaits the compiler of a similar inventory of human environmental factors. A 1972 Department of Health, Education and Welfare publication (No. HSM 72-9135) concluded that: "So little has been established regarding the overall process by which environmental degradation affects mental health as to point up the need for research on all aspects of



# NATURAL ENVIRONMENT INVENTORY

<u>Geologic and Physiographic</u>		<u>Urban Use Limitation</u>
Bedrock:-	-Deeply covered by valley fill	minimal
	-Close to surface but covered by Portland Hills Silt	moderate
	-Dominates geology	high
-----		
Land Stability:-	-No major problems	minimal
	-High earthquake damage potential	moderate
	-High landslide/earthquake potential	high
-----		
Mineral Resources:- (Analysis incomplete)	-No significant resource	minimal
	-Significant resource	moderate
	-Critical resource	high
-----		
Elevation:-	-Under 400'	minimal
	-400 to 1000'	moderate
	-over 1000'	high
-----		
Slope:-	-0 to 5%	minimal
	-5 to 25%	moderate
	-over 25%	high
-----		
<u>Hydrologic</u>		
Drainage:-	-No major problem	minimal
	-High water table	moderate
	-Diked flood plain	high
	-Undiked flood plain	severe
-----		
Groundwater Yield (Analysis incomplete)	-Low yield	minimal
	-Medium	moderate
	-High	high
-----		
<u>Meteorologic and Climatic</u>		
Precipitation:-	-under 40" per year	minimal
	-40" to 70" per year	moderate
	-over 100" per year	high
-----		

Snowfall:-	-under 20" per year -20" to 100" per year -over 100"	minimal moderate high
Temperature:-	-Heating degree days under 4500 -4500 to 5500 -over 5500	minimal moderate high
Air Pollution Potential:- (Analysis incomplete)	-Below average -Average -Above average	minimal moderate high
<u>Vegetation and Soils</u>		
Forest Cover:-	-Mostly unforested -Forested valley bottom -Forested foothills -Forested mountains	minimal moderate high severe
Commercial Forest Holdings	-Ownership by large forest products firms	high
Arability:-	-Very good (Class I and II) -Good (Class III) -Fair (Class IV) -Poor or non-arable	high moderate minimal high
<u>Wildlife and Fisheries</u>		
Game Habitat:- (Analysis incomplete)	-No significant habitat -Intermediate zones -Critical habitats	minimal moderate high
Aquatic Habitat:- (Analysis incomplete)	-No significant habitat -Intermediate zones -Critical habitats	minimal moderate high

the problem." Except in the case of epidemic physical disease, remarkably little is really known about relationships between human well-being and the physical and social environment. McHarg described (in Design with Nature) the uncompleted studies of an English biologist, G. Scott Williamson, and his hypothesis "that physical, mental and social health were unified attributes and there were aspects of the physical and social environment that were their corollaries." Efforts to assemble supportive evidence were cut short by World War II, and his beliefs remain to this day largely untested.

An initial inventory of human environmental considerations is nevertheless taking shape as outlined on pages 211-214.

Welding these kinds of data into a systematic evaluative tool is essential if questions of environmental impact are to be resolved outside the realm of mere conjecture. It is important that we do not become overly infatuated with the "neat" outcome of assessing the natural environment for setting parameters of the design of a plan, and forget the equally important aspect of the human response to a design. The magnitude of the data will require some degree of reliance on computer technology if the system is to be effective, but there seems little question of eventual feasibility. This does not imply, however, that such a system will absolve the community or its leaders from making judgments of value. How much value is to be put on wildlife habitats? or historic sites? or clean air? Even if we could know the environmental impact of all aspects of the Six-Point Program precisely, the degree of benefit or detriment would still be disputed -- judgmental decisions, in the last analysis, would still be called for. Systematic environmental analysis offers a factual -- rather than conjectural -- framework for

# HUMAN ENVIRONMENT INVENTORY

## Demographic

Projected* growth trends	) Evaluation of
Projected* distribution trends	) the extent to
Projected density trends	) which the 6-
(Analysis incomplete)	) Point Program
	) would modify
* Assuming "business-as-usual"	) or disrupt
	) these trends

## Socioeconomic

Degree of  
Importance

Community Identity:-	-Within an incorporated city	very high
	-Adjacent and within 1 mile	high
	-Within 1 mile of other community center	moderate

Rural Residential Homesites  
(Analysis incomplete)

The Regional Economy:-	-Income	) Evaluation of
(Analysis incomplete)	-Employment	) the extent to
	-Prices	) which the 6-
	-Land ownership, investment and tenure patterns	) Point Program
	-Housing costs	) would affect
		) those aspects
		) of the economy

Community Ethnology:-	-Ethnic patterns	) Evaluation of
(Analysis incomplete)	-Minority concentrations	) the extent to
		) which the 6-
		) Point Program
		) would modify
		) or disrupt
		) these patterns

Community Pathology:-	-Crime	) Evaluation of
(Analysis incomplete)	-Poverty	) the extent to
	-Substandard Housing	) which the 6-
	-Physical and mental disease	) Point Program
		) would ameliorate
		) these conditions

<u>Municipal Services</u>		<u>Level of Urban Commitment</u>
Urban Water Service:-	-Available or funded	high
	-Within district or city	moderate
	-Within CRAG water plan service area	minimal
-----		
Urban Sewer Service:-	-Available or funded	high
	-Within district or city	moderate
	-Within sewer service zone	moderate
	-Within CRAG sewer plan service area	minimal
-----		
Regional Service:-	-Within the Metropolitan Service District	moderate
	-Within Tri-County Metropolitan Service District (Tri-Met)	moderate
-----		
Public Revenues:- (Analysis incomplete)	-Property taxes	)Evaluation of )the extent to )which the 6- )Point Program )would affect )public revenues
	-Shared state and federal	
	-Other revenues	
	-Land value patterns	
-----		
Public Expenditures:- (Analysis incomplete)	-Capital costs	)Evaluation of )the extent to )which the 6- )Point Program )would affect )public expend.
	-Operational costs	
	-Debt service costs	
-----		
<u>Existing and Potential Land Use</u>		<u>Level of Urban Commitment</u>
Zoning for Urban Development:-	-1 acre to 7000 sq. ft. lots (depending on services)	high
	-1 acre to 15000 sq. ft. (depending on services)	moderate
	-2 acre minimum site	minimal
	-----	
		<u>Level of Non-Urban Commitment</u>
Conservation Zoning:-	-Flood plain zoning	moderate
	-Agricultural (farm commitment or 5 acre minimum)	
	-Clackamas River zone	high very high



		<u>Level of Urban Commitment</u>
Riverfront, rail access and other "committed" industrial sites:- (Analysis incomplete)	-Existing industrial use or funded -Existing/industrial utility service -Existing rail access -Existing deep-draft water access	very high high moderate minimal
-----		
<u>Transportation</u>		<u>Level of Urban Commitment</u>
Regional Accessibility (off-peak) to downtown Portland:-	-Within 20 minutes -Within 30 minutes	high moderate
-----		
Regional Accessibility (off-peak) to other Regional Centers:-	-Within 5 mile radius	high
-----		
Street Density (per square mile):-	-Unroaded -0.1 to 1.5% Streets -1.6 to 3.0% Streets -3.1 to 4.5% Streets -4.6 to 10.0% Streets -over 10.0% Streets	none minimal moderate high very high complete
-----		
Urban Population Density (per square mile):-	-over 10,000 persons -5,000 to 10,000 -2,000 to 5,000 -1,000 to 2,000	<u>Level of Transit Feasibility</u> high moderate minimal none
-----		
<u>Unique Areas or Sites</u>		<u>Commitment to Preserve</u>
CRAG Open Space Plan:-	-Areas with unique opportunities -Greenways proposed -Regional parks proposed	high high high
-----		
Historic areas and sites (Analysis incomplete)		
-----		
Sites for Vacation Homes, Recreation Areas, etc. (Analysis incomplete)		
-----		

Visual Appearance  
(Analysis incomplete)

-----

Noise  
(Analysis incomplete)

-----

this continuing debate over community values. It offers a perspective within which impacts on people and groups can be discovered through discussion of these reactions to proposed programs.

#### IMPACT OF THE SIX-POINT PROGRAM ON THE "BUSINESS-AS-USUAL" ENVIRONMENT

"Business-as-usual" has made great and vigorous cities. On the negative side it has produced urban sprawl, urban blight, and all of the other problems with which this report wrestles. The forces with which we are concerned are nationwide in scope and strength. CRAG's adopted new goals and policies call for measures to counter those aspects of the "business-as-usual" forces which have brought these problems upon us. The kinds of changes sought require strong medicine, and the proposed Six-Point Program would be strong medicine indeed.

The Interim Regional Development Policy, Population Growth Guidelines, Regional Zones, and urban, rural and property tax revision programs taken together would result in dramatically different patterns from what you would expect if you were counting on "business-as-usual". A property owner or investor calculating his future opportunities on the basis of projections of indicators such as the change in the housing stock over the last ten years, subdivision activity since 1970, and existing

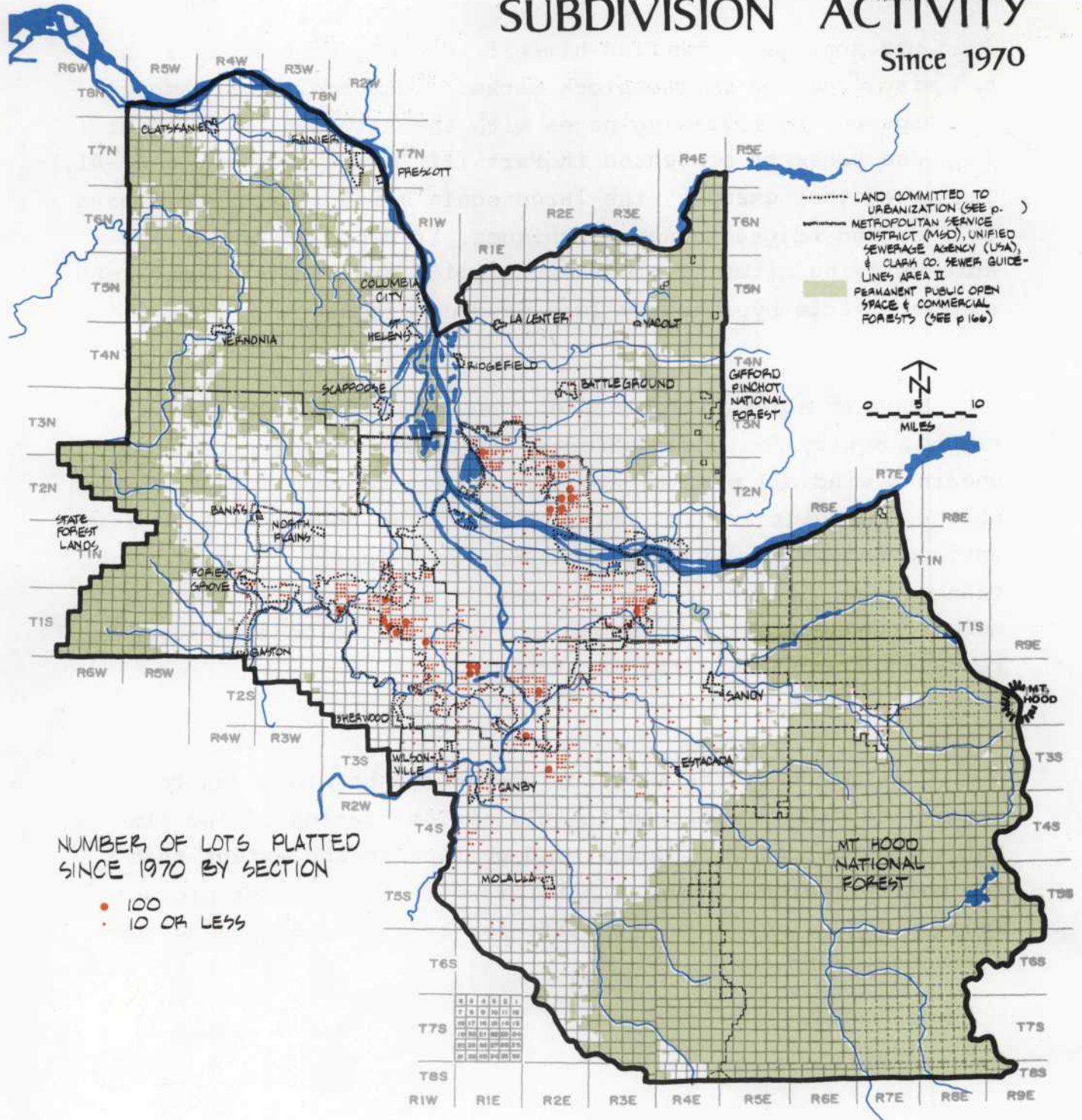
land use zoning, might find himself in the same boat as if he had miscalculated in the stock market. Compare, for example, the maps on the following pages with the alternative regional land use concepts presented in Part III (especially pages 80-81.) Taking another example, the large scale homebuilders would have to find and adjust to new techniques, if deprived of 100-200 acre outlying sites by programs to guide urban development into smaller tracts bypassed by leap-frog development.

Even if all the problems of just compensation for land rights, equity for those affected adversely and of preventing unearned windfall profits are effectively solved, implementation of the Six-Point Program means change. The "business-as-usual" environment, even with its problems, is a familiar environment. Change from the familiar to the new is always difficult, and more so today that it seems to be necessary to continually readjust on so many different fronts.

The impact of the shock of change can be minimized to the extent that the transition to full implementation of the Six-Point Program can be gradual, and perhaps to the extent that the entire regional community is drawn to the goal of protecting and enhancing quality of life for everyone, including generations yet to come.

# BUSINESS AS USUAL SUBDIVISION ACTIVITY

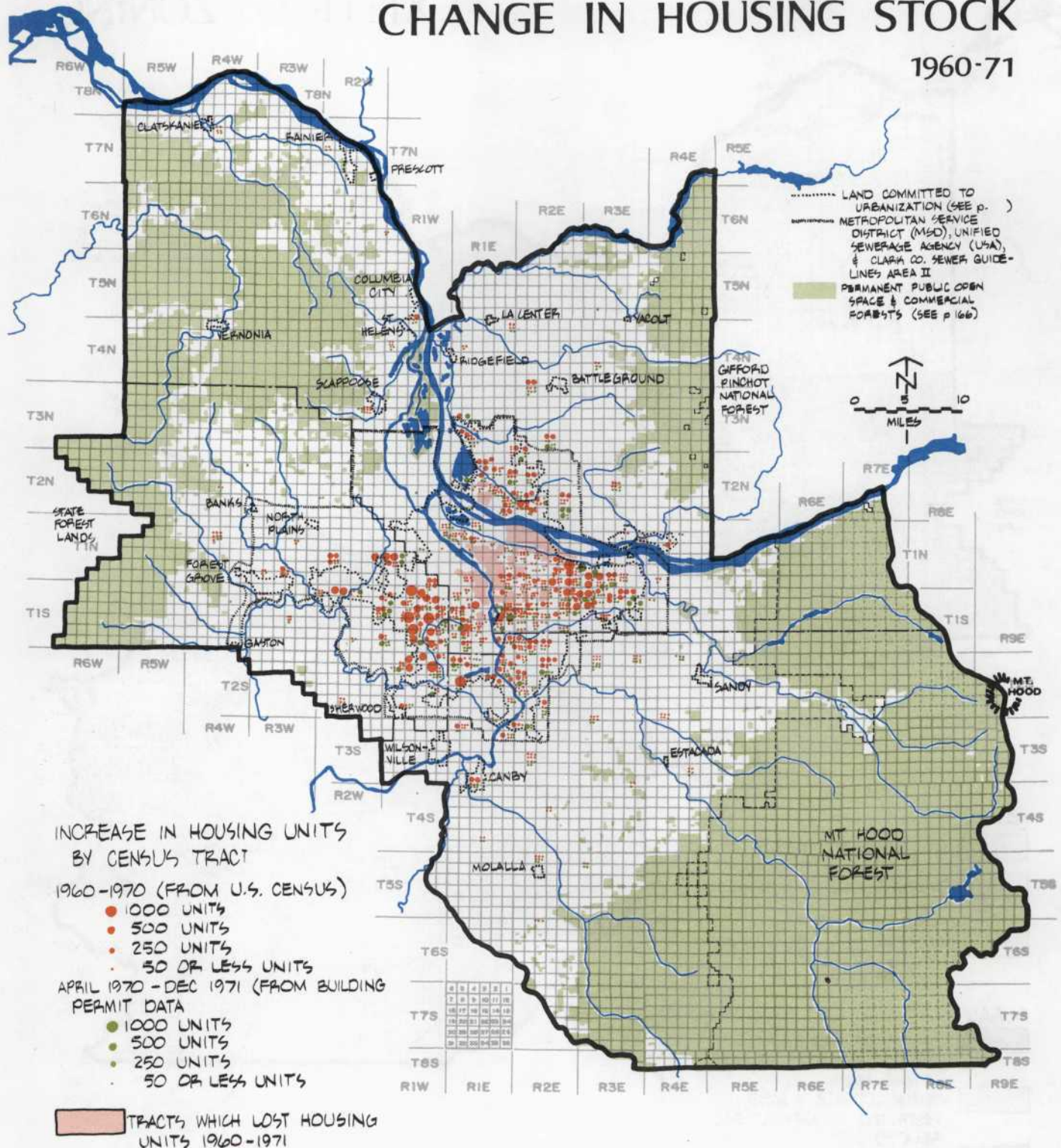
Since 1970





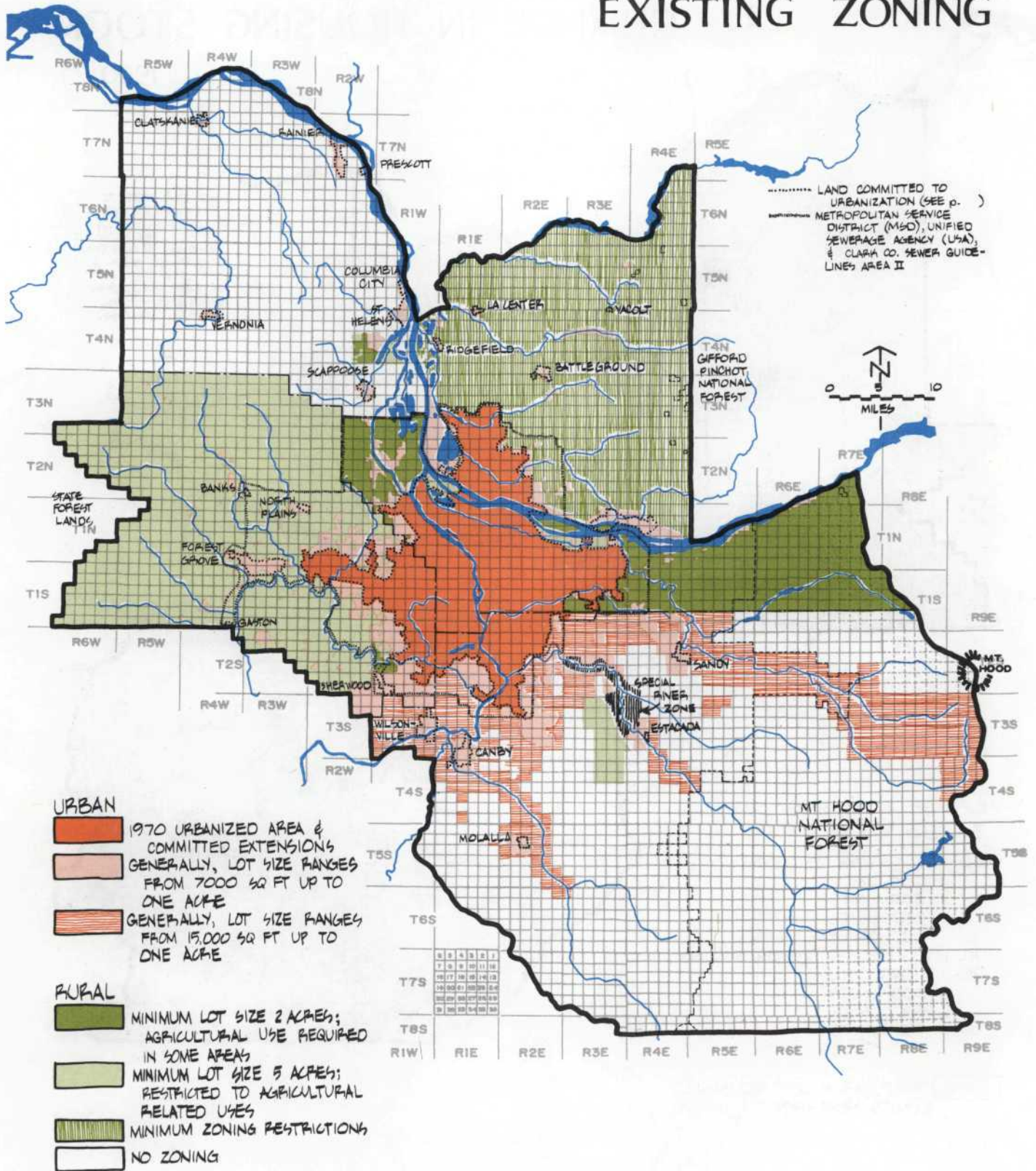
# BUSINESS AS USUAL CHANGE IN HOUSING STOCK

1960-71





# BUSINESS AS USUAL EXISTING ZONING



PART VI  
UNANSWERED QUESTIONS  
& NEXT STEPS

WHAT IS A "PROPERTY RIGHT" TODAY?

HOW MANY PEOPLE CAN THE  
RESOURCES AND ENVIRONMENT OF  
THE CRAG REGION SUPPORT BEFORE  
WE START TO BE OVERCROWDED?

CAN WE HAVE A VIABLE REGIONAL ECONOMY AND  
FULL EMPLOYMENT BASED ON GROWTH IN QUALITY  
INSTEAD OF GROWTH IN NUMBERS?

IN WHAT WAYS ARE SOCIAL AND MENTAL  
HEALTH RELATED TO THE PHYSICAL PATTERNS  
OF HUMAN SETTLEMENT AND ACTIVITY?

## UNANSWERED QUESTIONS

The intent of this report is to provide a regional-scale perspective of information, goals and choices within which we can move toward completion and adoption of a regional comprehensive plan, a plan incorporating the many new measures needed to move from where we are. The subject is so big that this report can only scratch the surface of many questions and concerns.

Unanswered questions are raised throughout the text. Some are raised directly; many others will have occurred to the thoughtful reader. Still more will arise in the course of the community discussions which the CRAG program is intended to generate.

There is no need to recapitulate here the long list of unanswered questions of which we are aware. Suffice it to say that they are of two quite different types. The first type is a question of information which could be answered by further data collection or research. For example, how much Class I agricultural land do we really have in the CRAG region and how is it now used? A similar question, but one further complicated by the element of expert judgement it requires, would be: how much industrial land do we have and how much should we set aside for a future population of two million people, given specified employment and income goals? Or, what would be the minimum amount of riverfront land we should save for eventual industrial use? Or, if we were to switch to the site value tax to raise the same amount of revenue now being raised by the total property tax, how much tax would I pay on my downtown office building? my fifteen-acre berry farm? my low-income apartment building? my West Hills home?

The second and different type of question cannot be answered by data collection and research at all, although such input may be helpful, since it involved questions of basic goals and values,



choices of life-style, and setting of priorities. For example, should public policy be to promote more apartment living and higher densities generally, to encourage dispersal of growth to outlying towns up to some limit, or to continue to leave what happens entirely up to the working of the real estate market? Or, should we budget more public money for acquisition of new parks and greenways, or should the increase be designated for improving mass transit? Or, should we act to slow population growth?

Another example of the second type of question is: Where is the balance between protection of basic private property rights and protection of the public's right to a healthy environment and protection of critical environmental resources?

Increasingly, as would-be land developers fetch up against environmental restrictions, they are taking to the courts. Decisions stemming from these court actions could determine where and in what setting future Americans live.

\* \* \*

In a significant recommendation, the Rockefeller Task Force urges the U.S. Supreme Court to reexamine decisions made in an earlier era before land was recognized as an irreplaceable natural resource instead of as a commodity to be considered for its maximum market value (referring to a newly released report of a Citizen Task Force on Land Use and Urban Growth, chaired by Laurance S. Rockefeller, and commissioned by President Nixon's Citizens' Advisory Committee on Environmental Quality).

\* \* \*

The growth and development of the country will thus be greatly affected by the courts as they seek to determine the adjustments in property rights required in the general public interest. In a recent U.S. Court of Appeals decision, which denied a developer's complaint and upheld six-acre minimum lot zoning in Sanbornton, N.H., Chief Judge Albert W. Coffin summarized the view from the bench:



"This court, like other federal and state courts throughout the country, finds itself caught up in the environmental revolution. Difficult and novel legal and factual questions are posed which require the resolution of conflicting economic, environmental, and human values. The problem inherent in quantifying a 'way of life', the beauty of an unspoiled mountain, may never be solvable with any degree of certitude.

"Thus basic value judgements will be made by legislators and voters which courts can review in most instances, not on the basis of the wisdom of these decisions, but rather only to determine whether they are permissible within the relevant statutory and constitutional framework."

-- Robert Cahn, Christian  
Science Monitor  
May 23, 1973

Many of the unanswered questions raised in and by this report will be found on examination to be combinations of simple questions of information with questions involving value judgements. Complex questions about the environmental capacity of the CRAG region, or the environmental impacts of various proposals, or ideal population size are of this type.

Some of the unanswered questions are nationwide in scope and complexity. In any event even unlimited planning resources could not eliminate the practical necessity for action based on imperfect knowledge.

This report proposes some specific and far-reaching measures. What CRAG now needs is to hear the public response. Here is the way we see it. What do you think? Are we on the right track? On which of the unanswered questions should we focus our energy in order to develop the final regional comprehensive plan? Where

are your priorities in all the things we've talked about? Do you see any major problems, concerns or opportunities we've not covered in either this report or the Appraisal and New Direction report?

#### NEXT STEPS

Looking back at the list of "Steps Toward Completion of a Comprehensive Plan for the CRAG Region" (facing the table of contents), we now have arrived at "Step 3" calling for "conduct of workshops, public meetings, hearings, etc., to discuss results of studies and to determine a final land use concept." At the same time we will need to explore the most crucial questions yet unanswered and complete the necessary supportive plan elements, including transportation, economics, social services, public works and community facilities, governmental structure and plan implementation.

Also at the same time, the review process outlined for the Interim Regional Development Policy on pages 97 and 98 needs to be carried out. The policy needs to be adopted by member governments, followed by a monitoring of subsequent growth trends, market demands, and effects of the adopted criteria and procedures applicable to each individual urban growth priority area.

#### HIGH PRIORITY STUDIES NEEDED

The following is a list of the additional studies which seem at this time to have the highest priority:

1. Evaluating and detailing the land use concepts, including the development of 1970-to-full-development "growth factors"

for small areas (traffic zones, census tracts). These "growth factors" cover quantitative variables such as population, housing units, employment, etc. which are needed in order to design and test transportation and utility systems related to the land use plan.

2. Systematic rating of land available for urban expansion for relative urban suitability, based on natural and human environmental factors.
3. Inventory the supply and demand for rural residential and agricultural parcels of various sizes.
4. Inventory the supply and demand for industrial tracts of various types and sizes, with particular emphasis on the region-wide need for river-frontage industrial sites.
5. Continue study of plan implementation measures, including capital improvement programming, codes and ordinances, rural development standards, regional zoning, revision of the property tax system and structure of local government.
6. Study the implications of a "no growth economy" or "growth in quality instead of growth in quantity".
7. Continue study of environmental impacts of proposals and of the possible environmental capacity of the CRAG region, with particular emphasis on the human environment and human needs.



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## APPENDIX





## 1. DERIVATION OF REGIONAL DENSITY STANDARDS

The uneven distribution of population is a basic fact of human settlement the world over. Standards by which this unevenness, i.e. variation in density, can be evaluated and judged are essential parameters for regional land use planning. Some background considerations for the derivation of density standards for the CRAG region, presented in pages 58 to 72 in Part III, are outlined below.

### Some Definitions

#### "Gross" versus "Net" Density

The term "density" refers to the relationship between population and land area. A further distinction is needed at the outset.

"Net density" is the population-to-land ratio expressed in terms of area required for residential land use, after streets and non-residential uses (e.g. schools, parks, business establishments, etc.) have been deducted from the total land area.

"Gross density" is the population-to-land ratio expressed in terms of total land area with no deductions for streets and other uses.

The derivation of regional density standards discussed in this report is concerned almost exclusively with gross density. Net densities, development standards and procedures, and the distribution of population are matters for detailed planning, with wide latitude for local determination, within this framework.

#### "Urban"

The area committed to development at urban densities starting with the existing Urbanized Area, which includes the City of Portland and all contiguous areas with a population density of 1000 people per square mile or more. Areas in the "Urban" category are committed to receive the full range of municipal urban services. Densities and lot sizes are such that private wells and septic tanks are allowed, if at all, only as interim measures.

Within the "urban" area housing types and densities vary widely, as follows:

Urban High Density - more than 10,000 persons per square mile; less than 2,000 square feet of net site area per housing unit, in multi-family structures. Example: Portland Center High Rise Development; Northwest Portland Apartment districts.

Urban Medium Density - 5,000 to 10,000 persons per square mile; 6,000 square foot lots with single family dwellings typical, such as Southeast Portland. This density is a characteristic of stable, older established neighborhoods (example St. Johns) where housing conditions are good and redevelopment is not foreseen. It may also include more recent developments such as Cedar Hills, which are "suburban" in location but not density. Single family homes, duplexes and small, low density apartments may exist together, and larger low density apartment complexes and mobile home parks may be appropriate. Poor quality housing in this density range may indicate unstable areas where special public policies and actions are needed.

Urban Low Density - 2,000 to 5,000 persons per square mile; 10,000 square foot lots with single family dwellings typical, such as West Slope or McLoughlin Heights. Typically, these areas are associated with the term "suburban."

Sub-Urban Low Density (Stable) - 1,000 to 2,000 persons per square mile; lot sizes up to 20,000 square feet are typical. Full urban services are committed, but further subdivision of large lots is not generally appropriate, either because of site characteristics such as steep terrain or the desirability of maintaining the existing character of the area. Example: Dunthorpe.

Sub-Urban Low Density (Transitional) - 1,000 to 2,000 persons per square mile; lot sizes larger than 10,000 square feet typical. Full urban services are committed but not necessarily completely available. Streets and lots are platted in such a way that further subdivision to accommodate higher densities is facilitated. Examples: West Linn or Hazeldell.

## "Rural"

The area inhabited at low rural and farm densities not provided with public utilities, facilities and services required by urban population concentrations. Nonfarm dwellings may be permitted only according to standards designed to encourage the continuation of productive and profitable agriculture, to preserve the open and undeveloped character of the countryside, to conserve natural resources, to protect the public health, and to prevent any further pollution of watercourses.

Within the "rural" area residential densities vary from low density rural residential homesites typically one or two acres in size, to the large parcels which are economic farm units.

### Densities of Major Metropolitan Areas Compared

It is helpful to look at other metropolitan areas to get some feel for differing population densities. People per square mile is the yardstick used in Table I, based on the 1970 U.S. Census.

Table I  
METROPOLITAN DENSITIES  
People per Square Mile in  
Urbanized Areas of Major U.S. Cities  
1970

Tacoma -----	2,600
Seattle-Everett -----	3,000
San Francisco-Oakland -----	4,400
Los Angeles-Long Beach -----	5,300
San Diego -----	3,100
Boston -----	4,000
Chicago -----	5,300
Denver -----	3,600
Minneapolis-St. Paul -----	2,400
New York City (NY-NJ) -----	6,700
Pittsburgh -----	3,100
Salt Lake City -----	2,600
Washington D.C. -----	5,000
PORTLAND-VANCOUVER -----	3,100

Table I shows that the gross density of the Portland-Vancouver Urbanized Area in 1970 was comparable to Pittsburgh, San Diego and Seattle-Everett. The figure is significantly lower than the 4100 people per square mile living within the 1970 city limits of the City of Portland.

#### Density Patterns within the Urbanized Area

Within the Portland-Vancouver Urbanized Area there is a wide range of gross densities from census tract to census tract and from municipality to municipality. The pattern for census tracts is mapped on page 66. The figures for municipalities within the Urbanized Area are given in Table II, page 233, followed by the figures for outlying municipalities in Table III.

Densities range from nearly 28,000 persons per square mile in census tract 48 in northwest Portland to less than 100 per square mile across the Willamette River in the Swan Island industrial district, tract 44.

Many of the density figures would be significantly higher if it were not for the fact that they include a substantial amount of vacant land, land which has been bypassed by urban development. Based on a 1970 Land Use Survey, an estimated 69 square miles out of the Urbanized Area total of 267 square miles was vacant and potentially available to meet the gross land needs of an expanded population (i.e. land for industry, business, homes, parks, and permanent public open spaces, etc.).

#### Existing Densities of Outlying Cities

Incorporated cities lying outside the 1970 Urbanized Area were also examined in terms of their gross population densities. Their respective 1972 land areas (i.e. incorporated territory) and populations were widely variable, as shown in Table III.



Table II  
CITY DENSITIES INSIDE THE URBANIZED AREA  
1972

<u>City</u>	<u>Certified July 1972 Population</u>	<u>Sq.Miles</u>	<u>Approx.Gross Density</u>	<u>Density Class</u>
Milwaukie	17,500	4.85	3600	Urban Low
Gladstone	6,950	2.43	2860	Urban Low
Johnson City	388	0.10	3880	Urban Low
Lake Oswego	14,597	8.71	1960	Suburban Low
West Linn	7,498	5.82	1290	Suburban Low
Rivergrove	319	0.20	1600	Suburban Low
Oregon City	10,300	4.64	2200	Urban Low
Beaverton	20,200	7.40	2730	Urban Low
Hillsboro	16,630	8.67	1900	Suburban Low
Tigard	7,300	3.84	1900	Suburban Low
Tualatin	1,800	4.00	450	Non Urban
King City	1,790	0.36	4970	Urban Low
Durham	410	0.43	950	Non Urban
Portland	384,000	93.24	4120	Urban Low
Maywood Park	1,200	0.17	7060	Urban Medium
Gresham	13,850	8.81	1550	Suburban Low
Troutdale	1,680	4.26	400	Non Urban
Fairview	1,255	0.48	2600	Urban Low
Wood Village	1,960	0.62	3160	Urban Low
Vancouver	44,000	14.22	3090	Urban Low
Total Cities Inside Urban- ized Area	569,827	173.25	3300	Urban Low

Table III  
DENSITIES OF OUTLYING CITIES  
1972

<u>City</u>	<u>Certified July, 1972 Population</u>	<u>Sq. Miles</u>	<u>Approx. Gross Density</u>	<u>Density Class</u>
Happy Valley	1,300	2.41	540	Non Urban
Wilsonville	1,000	5.35	190	Non Urban
Barlow	105	0.06	1750	Suburban Low
Sandy	1,620	1.40	1160	Suburban Low
Milalla	2,300	1.17	1970	Suburban Low
Estacada	1,310	0.82	1600	Suburban Low
Canby	4,400	3.05	1140	Suburban Low
Banks	436	0.16	2720	Urban Low
Cornelius	2,270	1.47	1540	Suburban Low
Forest Grove	8,690	4.32	2000	Urban Low
North Plains	730	0.68	1070	Suburban Low
Sherwood	1,640	1.25	1300	Suburban Low
Gaston	415	0.20	2080	Urban Low
Battleground	1,609	1.07	1500	Suburban Low
LaCenter	300	0.40	750	Non Urban
Ridgefield	1,014	0.70	1450	Suburban Low
Yacolt	508	0.47	1080	Suburban Low
Clatskanie	1,360	0.84	1620	Suburban Low
Columbia City	565	0.82	690	Non Urban
Prescott	95	0.07	1360	Suburban Low
Scappoose	2,175	1.54	1410	Suburban Low
Rainier	1,750	3.26	540	Non Urban
St. Helens	6,600	2.49	2650	Urban Low
Vernonia	1,645	1.03	1600	Suburban Low
Camas	5,920	3.04	1950	Suburban Low
Washougal	3,430	2.44	1400	Suburban Low
Total Out- lying Cities	53,186	40.51	1300	Suburban Low

### Existing Densities in Rural Areas

Outside of urbanized or outlying urban areas (defined above) there were approximately 2,150 square miles of rural land inhabited at an average density of 76 persons per square mile. This land area, considered to be available for rural settlement, does not include some 1964 square miles of uninhabited public lands and commercial forests.

### How Much More Dense Should the Portland-Vancouver Area Become?

Arguments for and against higher urban densities are presented in overview in pages 62 to 72 of this report. In the face of such considerations we must ask ourselves: at what point are the advantages of higher urban densities outweighed by the risks? How much more dense can our area become without sacrificing quality of life? Some additional considerations underlying the density standards finally adopted by the Area Development Committee are presented below:

First, there is no particular evidence in the Portland-Vancouver case to suggest that existing high density areas automatically correlate with social or physical problems. For example, the map of blighted housing by census tract on page 237 bears only a loose similarity to the map showing high density tracts (page 66). In fact, many of the highest density areas (in Northwest and East Central Portland, for example) are among the tracts least burdened with substandard housing. This lack of correlation is illustrated in Figure I. A note of caution: Census data in 1970 did not include age of housing which permits only a surmise that substandard housing is probably more a function of age than density in the Portland-Vancouver area.

Second, the higher densities being considered as a part of the Regional Plan are not nearly as high as many other parts of the world. But, the ability to absorb some new population at lower densities may be a mark of the quality of life we are concerned with throughout this study.

A tract by tract analysis of densities within the Census Bureau's 1970 Urbanized Area was performed in order to determine the extent to which opportunities exist to make more intensive use of the vacant land that has been bypassed in the outward push of urban expansion. This was done with a bias toward minimizing disruption of existing neighborhood density characteristics - i.e. with the least possible resort to redevelopment.

In general, the approach was to estimate the 1970 amount of vacant land contained in each census tract (or portion) lying within the Urbanized Area; then determine what gross density factor was appropriate to apply to vacant lands in each tract. Where vacant lands were surrounded by built-up areas the gross density prevailing in the surrounding area was applied. In some instances, no clearly defined density factor could be established by reference to surrounding circumstances. For example, much of a census tract might be occupied by housing at densities considerably below those of normally built-up urban neighborhoods. Where this was not judged to be a permanent condition (resulting from terrain or other physical limitations) a higher urban density factor was selected, consistent with the physical characteristics of the area in question.

The outcome of the tract by tract analysis suggested that there is in fact a substantial basis for asserting that higher density standards are possible without resorting to a major redevelopment program. In other words, sufficient vacant land is available within areas already committed to urban use to permit urban densities to be higher, although not to an extent that would greatly exceed what we generally have experience with. The regional gross density standards that have been evolved from this analysis are presented on page 61 in Part III of this report.

Under the standards proposed, the entire Urbanized Area that was defined in 1970 would come to be much like Portland is today, density-wise at least. Outlying cities could continue to vary, but on the average their density would more nearly resemble cities such as Beaverton or Gresham as they are today. Density in rural areas would be double the present average.

#### A Word of Caution

There is no definitive answer as to the real capabilities of all existing public service systems to meet the demands of higher densities; the best that can be said is that capacities will in all likelihood be very uneven. From the standpoint of regional sewerage capacity described on page 239, the situation appears reasonably favorable. With respect to the delivery of "people services" (schools, health care, etc.) the picture is much less clear. A good deal of work remains to be done by the Social Services Committee of CRAG to define problem areas as efforts are made to promote higher densities and move away from scattered, low density settlement.

It must also be recognized that the trends of the past two decades - locally as well as nationally - have clearly been toward lower gross regional densities, and projections based on these trends suggest that development pressures will be pushing densities in exactly the opposite direction envisioned in the standards proposed.

# BLIGHTED HOUSING By Census Tract 1970

Portland-Vancouver Area

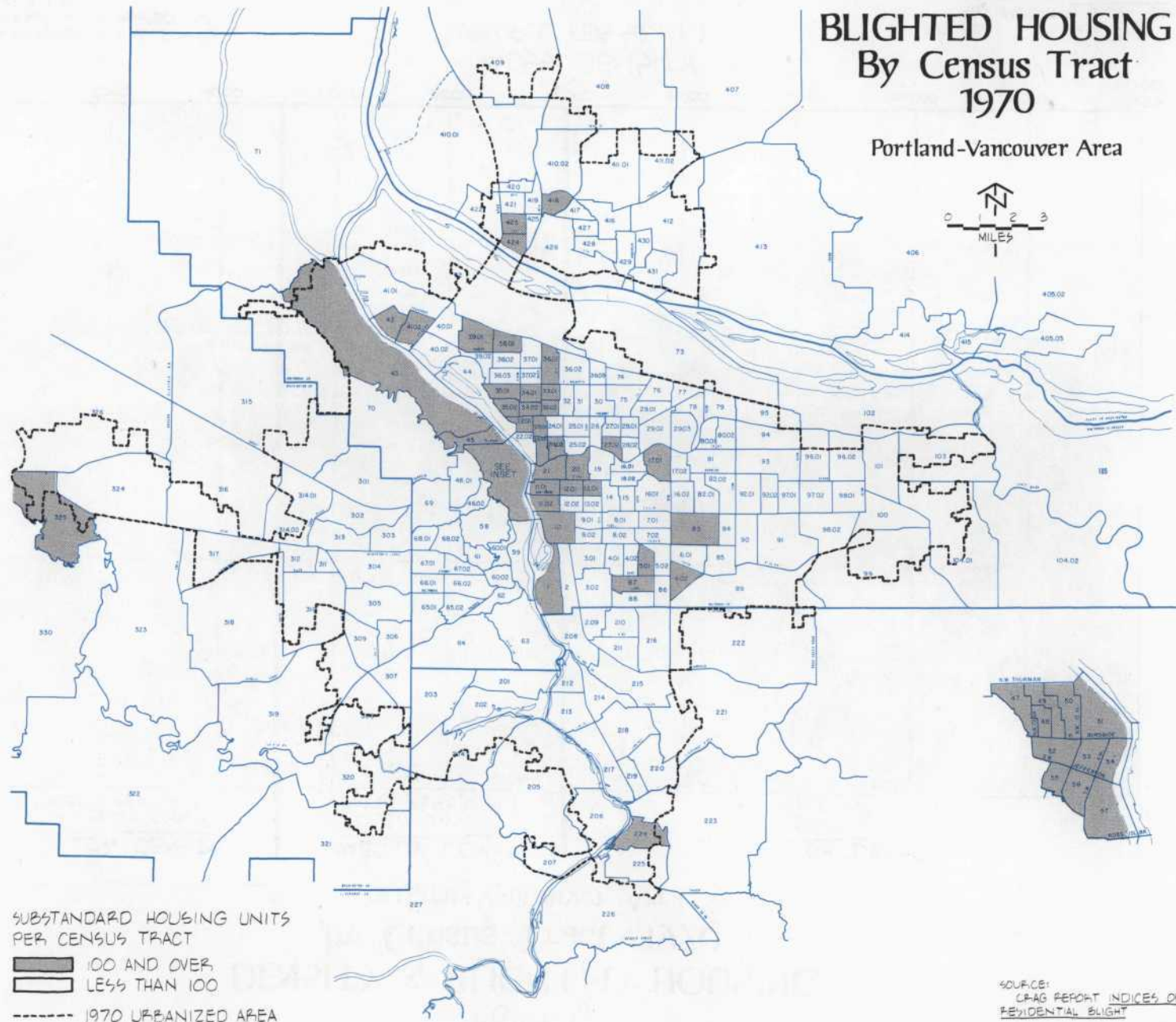
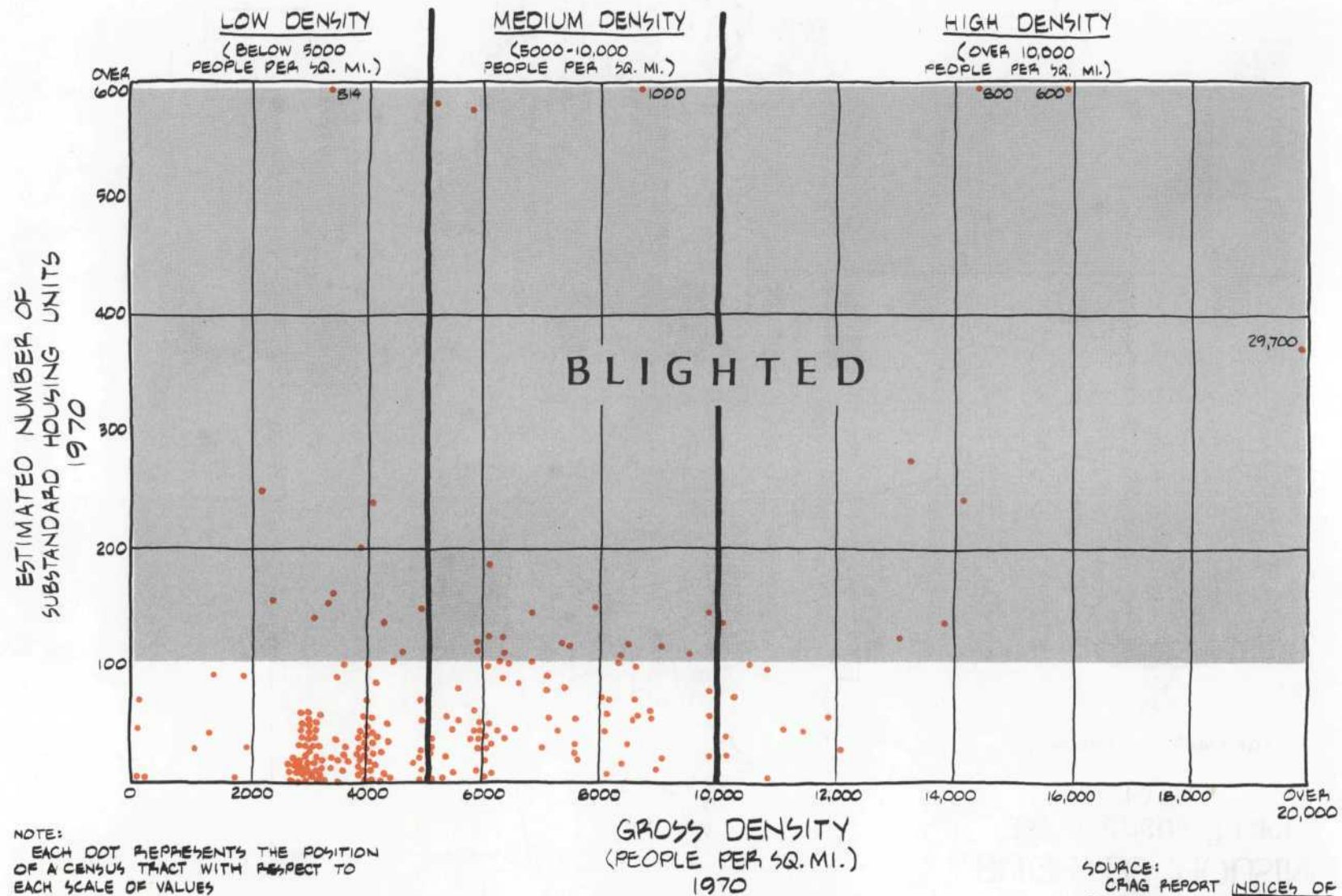




Figure 1  
**DENSITY & BLIGHTED HOUSING**  
 by Census Tract - 1970  
 Portland-Vancouver Area



## 2. NOTES ON REGIONAL SEWAGE DISPOSAL CAPABILITIES

1. Existing sewage treatment plants in the CRAG Region are estimated to be able now to process sewage flows equivalent to about 1.03 million people. If 20% of this capacity is required for the treatment of industrial wastes, the actual population capacity is probably nearer 800,000.
2. Existing collection systems service about 156,400 single family units and 44,400 multiple family units, totaling 200,800 units. Assuming a region-wide average of 3 persons per unit (the 1970 SMSA persons per household was 2.80) the entire system is probably now servicing about 600,000 people ( $3 \times 200,800 = 602,400$ ) or around 75% of the system's capacity.
3. Existing collection systems provide service to an area totaling about 179 square miles with an average population density of about 3400 persons per square mile --  $600,000 \div 179 = 3352$ .
4. Commitments (funding or construction under-way) have already been made to increase total sewage treatment capacity to serve a population equivalent of 1.3 million persons by 1975. Allowing 20% of this capacity for industrial wastes, an estimated 1,000,000 persons could be served by the existing system plus the expansions already committed.
5. The committed expansion of the sewerage system would probably extend collection service to an additional 53 square miles, totaling 232 square miles.
6. If the area that will be serviced by the existing and committed sewer facilities were fully populated by 1 million persons the average population density would be about 4300 persons per square mile ( $1,000,000 \div 232 = 4300$ ). -- Slightly higher than the 4100 persons per square mile standard proposed for the Central Urban area --
7. Beyond 1975, plans exist to increase long-run sewage treatment efficiency by consolidating 72 scattered, relatively small treatment plants into 19 major regional plants and 13 to 20 smaller satellite or rural plants. This would also result in an augmented capacity to treat sewage flows equivalent to 2.4 million persons. Again, allowing 20% for industrial waste treatment, this augmented capacity could probably serve a total population as high as 1.9 million persons. The design was based on a forecasted year 2000 population of 1.75 million.

3. "BUSINESS-AS-USUAL" POPULATION  
PROJECTIONS TO YEAR 2000

TOTAL CRAG AREA

A. CRAG Projections, Based on Socio-economic Criteria\*

	<u>1980</u>	<u>2000</u>
Low	1,227.8	1,741.2
Medium	1,267.3	1,864.5
High	1,306.8	2,010.4

B. Projections by Others for the CRAG Area\*

	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>2000</u>
NPA <sup>1</sup>	1,104.3	1,213.8	-	-	-
BPA	1,163.0	1,291.8	1,434.4	1,581.2	-
Bell	1,115.4	1,204.3	1,285.8	-	-
State Census Boards	1,113.4	1,245.1	1,377.3	1,512.9	1,753.6
EPA-HUD <sup>1</sup>	1,099.5	1,193.8	1,298.7	1,412.7	1,633.2
OBERS <sup>2</sup>	-	1,924.0	-	2,251.1	2,577.7

\* In Thousands. For sources, see page 242.

<sup>1</sup> Portland-Vancouver SMSA only (Multnomah, Clackamas, Clark and Washington Counties)

<sup>2</sup> 18 counties in Oregon and 5 in Washington.

# INDIVIDUAL COUNTIES

## A. CRAG Projections, Based on Socio-economic Criteria\*

		<u>Mult.</u>	<u>Clack.</u>	<u>Wn.</u>	<u>Clark</u>	<u>Col.</u>
Low	1980	589.3	219.8	225.4	158.4	34.9
	2000	651.0	369.0	412.2	261.2	47.9
Medium	1980	599.4	230.0	237.1	164.7	36.0
	2000	686.4	398.9	446.7	280.5	52.0
High	1980	614.2	237.8	246.5	171.2	37.1
	2000	731.6	434.2	484.8	303.6	56.1

## B. Preliminary CRAG Planning Allocations of a Design Population of 2,000,000 People, Based on Alternative Land Use Concepts\*

	<u>Mult.</u>	<u>Clack.</u>	<u>Wn.</u>	<u>Clark</u>	<u>Col.</u>
Concentration Plan	752.5	438.0	442.5	289.3	77.7
Dispersion Plan	701.0	439.0	465.0	286.4	108.6
Concentration/Dispersion Combined	755.5	397.8	448.2	299.5	99.0

\* In Thousands

C. Projections by Others \*

		Mult.	Clack.	Wn.	Clark	Col.
BPA						
	1975	587.0	200.9	201.2	143.3	30.6
	1980	614.9	236.5	244.9	162.9	32.6
	1985	641.4	277.3	292.9	187.8	35.0
	1990	662.6	321.9	342.7	216.4	37.6
Bell						
	1975	588.0	183.2	175.0	137.5	31.7
	1980	620.8	201.5	194.8	151.3	35.9
	1985	638.0	221.0	215.0	174.0	37.8
State Census Boards						
	1975	576.9	183.7	183.6	138.3	30.9
	1980	602.1	214.5	237.4	157.6	33.5
	1985	626.0	245.0	289.9	179.4	37.0
	1990	650.0	274.1	341.7	207.5	39.6
	2000	695.7	329.1	435.8	248.5	44.5

\* In Thousands

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Sources: NPA - "Metropolitan Area Growth Patterns for the Coming Decade", National Planning Association, 1971  
BPA - Population, Employment and Housing Units Projected to 1990; Bonneville Power Administration, Branch of Power Requirements, Portland, Oregon, 1973.  
State of Washington - Interim Population Projections to the Year 2000, by County State of Washington, Office of Program Management and Fiscal Planning, 1972.  
State of Oregon - Population Projections, 1975-2000, Oregon Counties, Oregon State Center for Population Research, Portland State University, 1973; and Annual Manpower Planning Report, Feb. 1973, For the Portland Area, State of Oregon, Employment Division, Dept. of Human Resources, 1973.  
Bell - Population and Household Trends in Washington, Oregon, and Northern Idaho, 1970-1985, Pacific Northwest Bell Telephone Co., Business Research Division, 1972.  
EPA-HUD - Population and Economic Activity in the U.S. and Standard Metropolitan Statistical Areas, Historical and Projected, 1950-2020, Prepared for the U.S. Environmental Protection Agency and HUD, by U.S. Dept. of Commerce, Social and Economic Statistics Administration, 1972.  
OBERS - Economic Activity in the U.S. by Water Resource Regions and Sub Areas, 1929-2020, prepared for the U.S. Water Resources Council by the Office of Business Economics of the U.S. Dept. of Commerce and the Economic Research Service of the U.S. Dept. of Agriculture, 1973.



4. COMPARATIVE URBAN POPULATIONS AT FULL DEVELOPMENT BY JURISDICTION

MULTNOMAH COUNTY	1972 Certified		LAND USE SKETCH PLAN CONCEPTS					
	Existing Pop.	Den/Sq Mile	Concentration		Dispersion		Concentration/Dispersion Combined	
			Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile
Portland Community	NA	NA	650,000	4500	588,000	4000	633,000	4300
Unincorporated (1972)	NA	NA	128,000	2500	186,300	3600	131,300	2400
Portland (City)	384,000	4118	520,000	6100	400,000	4300	500,000	5400
Maywood Park (City)	1,200	7058	1,700	9400	1,700	9400	1,700	9400
Gresham-Troutdale Community	NA	NA	80,000	3300	90,000	4000	100,000	4600
Unincorporated (1972)	NA	NA	28,300	2800	30,500	3800	35,800	4800
Gresham	13,850	1554	40,000	4500	35,000	3900	40,000	4500
Troutdale	1,680	394	8,000	1900	19,000	4500	19,000	4500
Fairview	1,255	2614	1,500	3100	2,400	5000	2,200	4600
Wood Village	1,960	3161	2,200	3500	3,100	5000	3,000	4800
Urban Area (Total)	NA	NA	730,000	4300	678,000	3900	733,000	4300
Rural Area (Total)	NA	NA	22,500	160	23,000	160	22,500	160
Multnomah County Total	560,000	1225	752,500	1677	701,000	1534	755,500	1653

	Area Totals (square miles)		Area Totals (Sq. Miles)		Area Totals (Sq. Miles)		Area Totals (Sq. Miles)	
	Urban	NA	Urban	169.67	Urban	167.65	Urban	169.85
	Rural	NA	Rural	140.83	Rural	142.85	Rural	140.65
	Uninhabited	146.50	Uninhab.	146.50	Uninhab.	146.50	Uninhab.	146.50
NA-Data Not Available	Total	457.00	Total	457.00	Total	457.00	Total	457.00

CLARK COUNTY	1972 Certified		LAND USE SKETCH PLAN CONCEPTS					
	Existing Pop.	Den/Sq Mile	Concentration		Dispersion		Concentration/Dispersion Combined	
			Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile
Vancouver Community	NA	NA	200,000	3200	172,000	3600	180,000	3400
Unincorporated (1972) Vancouver (City)	NA 44,000	NA 3094	120,000 80,000	2500 5600	102,000 60,000	3000 4200	106,000 74,000	2800 5200
Camas-Washougal Community	NA	NA	15,000	2200	28,000	2800	40,000	3100
Unincorporated (1972) Camas (City) Washougal (City)	NA 5920 3430	NA 1947 1405	2,000 8,000 5,000	1600 2600 2000	8,000 12,000 8,000	1700 3900 3300	10,000 18,000 12,000	1400 5900 4900
Battleground Community	NA	NA	2,000	1900	8,000	3600	5,000	2600
Unincorporated (1972) Battleground (City)	NA 1609	NA 1503	-- 2,000	-- 1900	3,000 5,000	2600 4700	2,000 3,000	2300 2800
Ridgefield Community	NA	NA	1,500	2100	3,000	2000	3,000	1800
Unincorporated (1972) Ridgefield (City)	NA 1014	NA 1448	-- 1,500	-- 2100	1,000 2,000	1300 2900	1,000 2,000	1000 2900
LaCenter Community	NA	NA	500	1300	3,000	3400	1,000	2500
Unincorporated (1972) LaCenter (City)	NA 300	NA 750	-- 500	-- 1300	1,000 2,000	2100 5000	-- 1,000	-- 2500
Yacolt Community	NA	NA	1,000	2100	2,000	2000	1,000	2100
Unincorporated (1972) Yacolt (City)	NA 508	NA 1080	-- 1,000	-- 2100	1,500 1,500	2900 3200	-- 1,000	-- 2100
Urban Areas (Total)	NA	NA	220,000	3100	216,000	5600	230,000	3300
Rural Area (Total)	NA	NA	69,300	160	70,400	160	69,500	160
Clark County Total	132,800	199	289,300	434	286,400	413	299,500	449

	Area Totals (square miles)		Area Totals (Sq. Miles)		Area Totals (Sq. Miles)		Area Totals (Sq. Miles)	
	Urban	NA	Urban	71.22	Urban	63.99	Urban	69.81
	Rural	NA	Rural	433.03	Rural	440.26	Rural	434.44
	Uninhabited	162.75	Uninhab.	162.75	Uninhab.	162.75	Uninhab.	162.75
NA-Data Not Available	Total	667.00	Total	667.00	Total	667.00	Total	667.00

COLUMBIA COUNTY	1972 Certified		LAND USE SKETCH PLAN CONCEPTS					
	Existing Pop.	Den/Sq. Mile	Concentration		Dispersion		Concentration/Dispersion Combined	
			Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile
St. Helens-Columbia City Community	NA	NA	15,000	3300	30,000	4100	28,000	4700
Unincorporated (1972)	NA	NA	3,500	2800	9,500	2400	11,000	4100
St. Helens (City)	6,600	2650	10,000	4000	18,000	7200	15,000	6000
Columbia City (City)	565	689	1,500	1800	2,500	3000	2,000	2400
Scappoose Community	NA	NA	5,000	3200	15,000	5000	10,000	4400
Unincorporated (1972)	NA	NA	--	--	6,000	4000	3,000	3400
Scappoose (City)	2,175	1412	5,000	3200	9,000	5800	7,000	4500
Clatskanie Community	NA	NA	2,800	3300	4,000	3100	2,800	3300
Unincorporated (1972)	NA	NA	--	--	1,000	2100	--	--
Clatskanie (City)	1,360	1619	2,800	3300	3,000	3600	2,800	3300
Rainier Community	NA	NA	3,500	1100	6,500	1400	6,000	1300
Unincorporated (1972)	NA	NA	--	--	2,000	1400	1,500	1000
Rainier (City)	1,750	536	3,500	1100	4,500	1400	4,500	1400
Vernonia Community	NA	NA	2,500	2400	5,000	3800	4,000	3900
Unincorporated (1972)	NA	NA	--	--	1,000	3600	--	--
Vernonia (City)	1,645	1597	2,500	2400	4,000	3900	4,000	3900
Prescott Community	NA	NA	200	2900	500	2800	200	2900
Unincorporated (1972)	NA	NA	--	--	300	2700	--	--
Prescott (City)	95	1357	200	2900	200	2900	200	2900
Urban Areas (Total)	NA	NA	29,000	2600	61,000	4100	51,000	3403
Rural Areas (Total)	NA	NA	48,700	160	47,600	160	48,000	161
Columbia County Total	30,700	45	77,700	115	108,600	177	99,000	147

Area Totals (Square Miles)		Area Totals (Sq Miles)		Area Totals (Sq Miles)		Area Totals (Sq. Miles)	
Urban	NA	Urban	11.32	Urban	17.78	Urban	15.11
Rural	NA	Rural	304.18	Rural	297.72	Rural	300.39
Uninhabited	360.50	Uninhab.	360.50	Uninhab.	360.50	Uninhab.	360.50
Total	676.00	Total	676.00	Total	676.00	Total	676.00

NA-Data Not Available

CLACKAMAS COUNTY	1972 Certified		LAND USE SKETCH PLAN CONCEPTS					
	Existing Pop.	Den/Sq Mile	Concentration	Dispersion	Concentration/Dispersion Combined	Concentration	Dispersion	Concentration/Dispersion Combined
	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile
North Clackamas Community	NA	NA	150,000	4800	110,000	3700	130,000	4300
Unincorporated (1972)	NA	NA	102,500	4800	70,500	3500	86,500	4300
Milwaukie (City)	17,500	3608	30,000	6200	25,000	5200	25,000	5200
Gladstone (City)	6,950	2860	10,000	4100	9,000	3700	12,000	4900
Happy Valley (City)	1,300	539	7,000	2900	5,000	2100	6,000	2500
Johnson City (City)	388	3880	500	5000	500	4500	500	4500
Lake Oswego-West Linn Community	NA	NA	90,000	4400	89,000	3900	60,000	2900
Unincorporated (1972)	NA	NA	31,000	5300	34,000	5900	19,000	3000
Lake Oswego (City)	17,100	1963	36,000	4100	36,000	4100	25,000	2900
West Linn (City)	7,498	1288	22,000	4000	18,000	3300	15,000	2600
Rivergrove (City)	319	1595	1,000	5000	1,000	5000	1,000	5000
Wilsonville Community	NA	NA	20,000	3700	20,000	3700	10,000	1900
Unincorporated (1972)	NA	NA	--	--	--	--	--	--
Wilsonville (City)	1,000	186	20,000	3700	20,000	3700	10,000	1900
Canby Community	NA	NA	10,000	3200	20,000	3700	17,000	3300
Unincorporated (1972)	NA	NA	--	--	6,700	2900	3,700	5800
Canby (City)	4,400	1442	9,700	3200	13,000	4300	13,000	3600
Barlow (City)	105	1750	300	5000	300	5000	300	5000
Estacada Community	NA	NA	2,000	2400	8,000	3800	3,000	2200
Unincorporated (1972)	NA	NA	--	--	4,000	3100	1,000	1800
Estacada (City)	1,310	1965	2,000	2400	4,000	4900	2,000	2400
Sandy Community	NA	NA	8,000	5700	18,000	4300	18,000	3900
Unincorporated (1972)	NA	NA	--	--	9,000	3200	9,000	2800
Sandy (City)	1,620	1157	8,000	5700	9,000	6400	9,000	6400
Oregon City Community	NA	NA	40,000	2900	38,000	3600	40,000	3800
Unincorporated (1972)	NA	NA	21,000	2300	19,000	3200	21,000	3500
Oregon City (City)	10,300	2219	19,000	4100	19,000	4100	19,000	4100
Molalla Community	NA	NA	4,000	3400	10,000	2700	6,000	1700
Unincorporated (1972)	NA	NA	--	--	4,000	1600	3,000	1200
Molalla (City)	2,300	1965	4,000	3400	6,000	5100	3,000	2600
Hoodland Community	NA	NA	--	--	5,000	2600	--	--
Damascus Community	NA	NA	--	--	8,000	6500	--	--
Urban Areas (Total)	NA	NA	324,000	4200	326,000	3800	284,000	3600
Rural Areas (Total)	NA	NA	114,000	160	113,000	160	113,800	160
Clackamas County Total	178,400	94	438,000	231	439,000	232	397,800	210

	Area Totals (square miles)	Area Totals (sq miles)	Area Totals (sq miles)	Area Totals (sq miles)
Urban	NA	Urban 76.97	Urban 85.04	Urban 79.74
Rural	NA	Rural 713.78	Rural 705.71	Rural 711.01
Uninhabited	1102.25	Uninhab. 1102.25	Uninhab. 1102.25	Uninhab. 1102.25
Total	1893.00	Total 1893.00	Total 1893.00	Total 1893.00

NA-Data Not Available

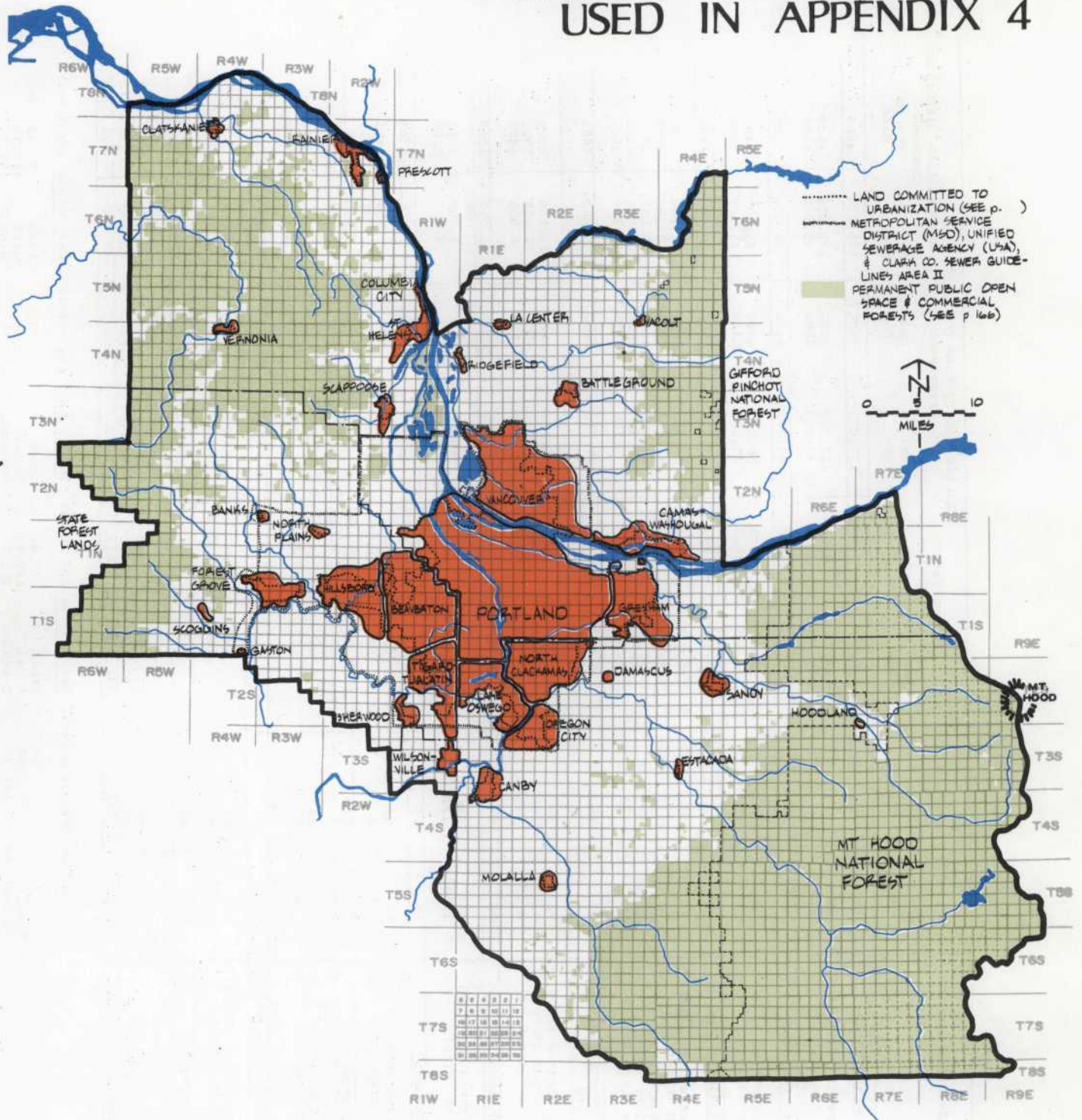
WASHINGTON COUNTY	1972 Certified		LAND USE SKETCH PLAN CONCEPTS					
	Existing Pop.	Den/Sq Mile	Concentration		Dispersion		Concentration/Dispersion Combined	
			Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile	Max. Pop.	Den/Sq Mile
Beaverton Community	NA	NA	230,000	5200	170,000	3900	175,000	4000
Unincorporated (1972)	NA	NA	184,000	4900	127,000	3500	130,000	3600
Beaverton (City)	20,200	2730	46,000	6200	43,000	5800	45,000	6100
Hillsboro Community	NA	NA	70,000	2700	97,000	5100	80,000	4200
Unincorporated (1972)	NA	NA	30,000	1700	50,000	4800	35,000	3400
Hillsboro (City)	16,630	1918	40,000	4600	47,000	5420	45,000	5200
Tigard-Tualatin Comm.	NA	NA	45,000	1900	74,000	3800	60,000	3200
Unincorporated (1972)	NA	NA	16,700	1100	38,700	3600	31,000	3200
Tigard (City)	7,300	1901	15,000	3900	17,000	4400	15,000	3900
Tualatin (City)	1,800	450	10,000	2500	15,000	3800	10,000	2500
King City (City)	1,790	4972	1,800	5000	1,800	5000	1,800	5000
Durham (City)	410	953	1,500	3500	1,500	3500	1,500	3500
Forest Grove-Cornelius Community	NA	NA	25,000	3700	35,000	3900	50,000	5600
Unincorporated (1972)	NA	NA	6,000	3500	8,000	2600	20,000	5500
Forest Grove (City)	8,690	2012	15,000	3500	20,000	4600	22,000	5900
Cornelius (City)	2,270	1544	4,000	2700	7,000	4800	8,000	5400
Sherwood Community	NA	NA	2,500	2000	10,000	2500	8,000	2200
Unincorporated (1972)	NA	NA	--	--	4,500	1700	4,000	1700
Sherwood (City)	1,640	1312	2,500	2000	5,500	4400	4,000	3200
Banks Community	NA	NA	500	3100	4,000	4200	2,000	2200
Unincorporated (1972)	NA	NA	--	--	3,200	4100	1,500	1900
Banks (City)	435	2718	500	3100	800	5000	500	3100
Gaston Community	NA	NA	500	2500	1,000	5000	1,000	5000
Unincorporated	NA	NA	--	--	--	--	--	--
Gaston (City)	415	2075	500	2500	1,000	5000	1,000	5000
North Plains Community	NA	NA	1,500	2200	6,000	2900	3,000	1700
Unincorporated (1972)	NA	NA	--	--	3,000	2100	1,500	1400
North Plains (City)	730	1073	1,500	2200	3,000	4400	1,500	2200
Scoggin Community	NA	NA	--	--	--	--	1,000	1200
Urban Areas (Total)	NA	NA	375,000	3600	397,000	3900	380,000	3900
Rural Areas (Total)	NA	NA	67,500	160	68,000	160	68,200	160
Washington County Total	178,300	249	442,500	618	465,000	650	448,200	626

	Area Totals (square miles)	Area Totals (sq miles)	Area Totals (sq miles)	Area Totals (Sq Miles)
Urban	NA	Urban 102.82	Urban 97.94	Urban 97.49
Rural	NA	Rural 421.43	Rural 426.31	Rural 426.76
Uninhabited	191.75	Uninhab. 191.75	Uninhab. 191.75	Uninhab. 191.75
Total	716.00	Total 716.00	Total 716.00	Total 716.00

NA-Data Not Available



# COMMUNITY BOUNDARIES USED IN APPENDIX 4



## 5. LAND CAPABILITY CLASSES

As Defined By The  
Soil Conservation Service,  
U.S. Department of Agriculture

Capability classification is the grouping of soils to show, in a general way, their suitability primarily for cultivation. It is based on limitations of the soils, the risk of damage when they are used, and the way they respond to treatment. The classification does not apply to soils used for most horticultural crops, or for other crops that have special requirements. The soils are classified according to degree and kind of permanent limitation, but without consideration of major and generally expensive land-forming that would change the slope, depth or other characteristics of the soils, and without consideration of possible but unlikely major reclamation projects.

CAPABILITY CLASSES<sup>\*</sup> are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use, defined as follows:

- Class I. Soils that have few limitations that restrict their use.
- Class II. Soils that have some limitations that reduce the choice of plans or require moderate conservation practices.
- Class III. Soils that have severe limitations that reduce the choice of plants, or require special conservation practices, or both.
- Class IV. Soils that have very severe limitations that restrict the choice of plants, or require very careful management, or both.
- Class V. Soils that are subject to little or no erosion but have other limitations, impractical to remove, that limit their use largely to pasture, range, woodland or wildlife.
- Class VI. Soils that have severe limitations that make them generally unsuitable for cultivation and limit their use largely to pasture, range, woodland or wildlife.
- Class VII. Soils that have very severe limitations that make them unsuitable for cultivation and that restrict their use largely to grazing, woodland or wildlife.
- Class VIII. Soils and land forms that have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, or water supply, or to esthetic purposes.

<sup>\*</sup> A generalized map of these capability classes in the 5-county CRAG Region is included in Planning in the CRAG Region: An Appraisal and New Direction, page 29.

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