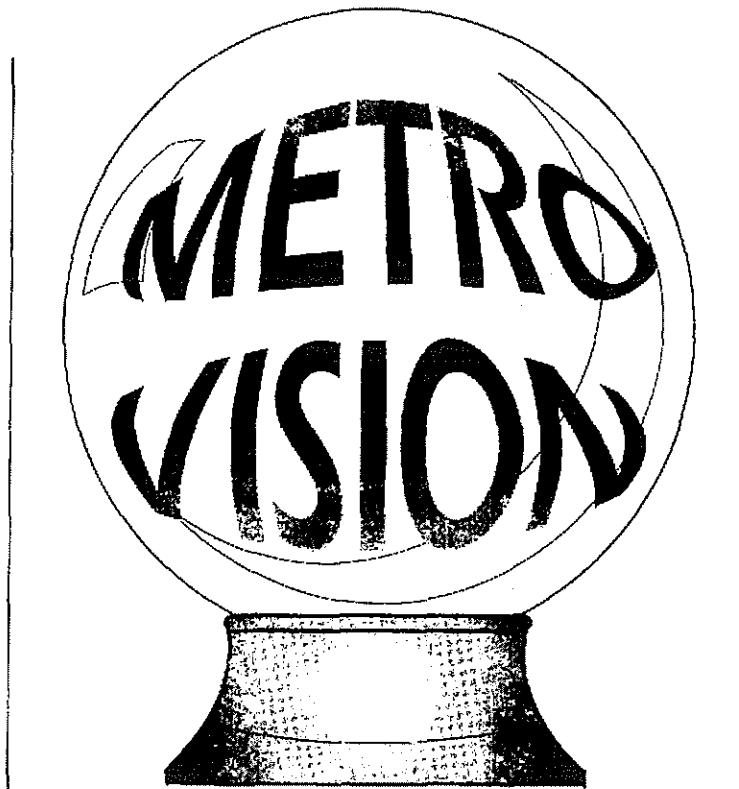


METRO VISION

a regional development plan



Vision Statement Principles and Policies

May 1992

DRCOG

Denver Regional Council of Governments

PL
109

**METRO VISION
A REGIONAL DEVELOPMENT PLAN FOR THE DENVER REGION
VISION STATEMENT, PRINCIPLES, AND POLICIES**

**Accepted by Board of Directors
For Use in Preparation of the
Regional Development Plan**

May 1992

**Denver Regional Council of Governments
2480 West 26th Avenue, Suite 200B
Denver, Colorado 80211**

**Preparation of this report has been financed in part through grants
from the Federal Transit Administration and the Federal
Highway Administration of the U.S. Department of Transportation**

ABSTRACT

TITLE: Metro Vision: A Regional Development Plan for the Denver Region

AUTHOR: Denver Regional Council of Governments

SUBJECT: Regional Growth and Development

DATE: May 1992

SOURCE OF COPIES: Public Affairs Office
DRCOG
2480 West 26th Avenue, Suite 200B
Denver, Colorado 80211-5580
(303) 455-1000

NUMBER OF PAGES: 39

ABSTRACT: This report contains the vision statement, the regional development principles and policies to achieve those principles. These items are the first step in preparing a new development plan for the Denver region and were accepted for use in the next phase by the DRCOG Board of Directors. They describe the major features desired in the region as it grows over the next 20 to 30 years.

TABLE OF CONTENTS

I.	INTRODUCTION	1
	Phase I	1
	Phase II	2
	Phase III	2
II.	VISION STATEMENT	5
III.	PRINCIPLES AND POLICIES	7
	Introduction	7
	Regional Development	7
	Regional Employment Distribution	10
	Balanced Communities	13
	Service Provision	15
	Transportation	18
	Air Quality	21
	Water Quality	23
	Environmental Quality	25
	Open Space	28
	Regional Aesthetics	31
	APPENDIX A Glossary of Terms	35

I. INTRODUCTION

Throughout its more than 35 years as the regional planning agency, the Denver Regional Council of Governments (DRCOG) has developed and revised a basic planning document to guide the development of the Denver metropolitan area. This plan has reflected the vision that the citizens at that time had for the future. In 1990, DRCOG began the process of reviewing and updating the Regional Development Framework. This newest effort has been titled Metro Vision to recognize the importance of visionary thinking to the goals of a dynamic urban center. It is hoped that Metro Vision will provide an opportunity for the region's citizens to identify pressing regional issues, to develop a statement about the desired future of the region, and to define steps that will shape the growth of the region to fit that vision statement.

This effort has already involved a task force which prepared a draft of the principles and policies for Metro Vision during 1991 and has started consideration of alternative plan maps. These maps are intended to lead to a final plan map which would represent the region's physical form in the future if the principles and policies were implemented. This effort will be integrated with the development of a new regional transportation plan and used as the basis for DRCOG's other functional plans.

A fundamental factor affecting DRCOG's planning efforts is the release of information from the 1990 Census. This report on the region's growth is the basis for reconsideration of the long-range forecasts for future growth. Such forecasts are the foundation for any planning effort. A group of economists and demographers has begun assessing the currently adopted forecast and expects to recommend a new forecast to 2020 by the summer of 1992. On the basis of a new forecast for population and employment, planning can occur to assess the impacts of this growth, provide the necessary infrastructure and public facilities, and implement policies to protect and improve the quality of life for both new and current residents of the region.

The new forecasts and the revised development plan are critical components in DRCOG's other planning efforts, which include the Regional Transportation Plan, the Clean Water Plan and the various aging plans. Other agencies such as the Colorado Department of Transportation and the Regional Air Quality Council will use such plans as the basis for their own consideration. Over the next two years, DRCOG will be following a three-phase process to develop Metro Vision.

Phase I

Phase I actually began in early 1990 with the DRCOG Board of Directors asking the Regional Planning Advisory Committee, made up of city and county planning directors, to consider the preparation of a new regional development plan. The committee suggested that a Regional Development Plan Task Force be formed to include a wide spectrum of interests in the development of the new plan. As mentioned above, the task force has prepared a draft set of principles and policies that serve as the heart of the new plan. The task force also has prepared a draft "vision statement" which tries to express in two paragraphs the members' desires about the future physical condition of the region and its effect on the region's quality of

life. The Regional Planning Advisory Committee has had an opportunity to review and comment on these parts of the new plan prior to presentation to the citizens of the region.

During January and February of 1992, DRCOG sponsored a series of workshops to consider the vision for the region that was proposed by the task force. The task force and the Board's Regional Planning Policy Committee have reviewed the comments from the workshops and revised the document to reflect their findings. The Board of Directors accepted the vision statement, principles and policies for use in Phase II at its May 1992 meeting.

Phase II

While the principles and policies express many of the fundamental elements of a vision for the region, many people have a hard time visualizing the resulting future until they can see the consequences of such principles in a plan map. Many alternatives could be prepared that emphasize various elements of the plan principles. The task force has suggested criteria which can be used to evaluate the maps against the principles and this evaluation is a major work effort for DRCOG in 1992-93.

Once the DRCOG Board has formally considered the principles and policies, an intensive evaluation of alternative plan maps will be undertaken. As required by the new transportation planning process, this effort will be integrated with the update of the Regional Transportation Plan. Alternative transportation networks will be defined along with the development maps. This evaluation will include the quantitative and qualitative assessment of the impact of these alternatives on such elements as the future transportation, air quality and water quality systems of the region. The evaluations should identify how physical form can affect changes in other elements of the region's quality of life. The result may be a composite of the best elements of the various alternatives.

It is anticipated that a thorough review of a set of alternative plan maps will require most of two years, especially with the continued inclusion of a public participation element. A report on the assessment of alternative plan maps, including impacts on other DRCOG plans, would be scheduled for Board consideration in late 1993.

Phase III

With Board acceptance of the principles, policies and plan map and elements of the future transportation networks, DRCOG can update and extend the Clean Water Plan and the Regional Transportation Plan. As these plans are prepared during early 1994, they may identify final refinements to Metro Vision so that a complete set of consistent regional plans could be considered by the DRCOG Board in the first half of 1994.

It would also be important to consider a package of action strategies for moving the region toward the goals of all of the region's plans. Some of these strategies have already been suggested by the Regional Development Plan Task Force and could be pursued during this planning process. However, they could become a major focus of consideration during 1993. Some of these strategies will be items for DRCOG to implement through its ongoing planning programs. Others will be items for DRCOG members to undertake. It is also possible that some steps will require action by the Colorado General Assembly and the various state

administrative departments. DRCOG's legislative program and its contacts with the state administration will be directed toward this effort during 1993.

The material in this report is the first step in DRCOG's effort to prepare for the region's future. A variety of interest groups have been involved in the preparation of this document. Now the region's policymakers are being asked to consider how the statements presented will affect the lives of the region's residents, both now and in the future.

II. VISION STATEMENT

Any plan is intended to be a statement of the future vision of a community. The vision should express the basic values of the community and outline what the community wants to be like in the long term. The Metro Vision plan is being written as a statement of the future for the Denver metropolitan region. This region contains over 1.8 million citizens with many different goals for their individual futures. In some ways that makes it very difficult to develop a common vision. However, in preparing a new regional development plan, it has been clear that a number of basic values are common throughout the region.

The vision statement originally drafted by the Regional Development Plan Task Force is an attempt to put into three paragraphs this common vision for the region. It formed the touchstone for preparation of the principles and policies that follow in the next section. As the task force worked through the various issues and elements of the plan, they referred to the vision statement for guidance.

It is important that these sentences be discussed and debated before being adopted by the DRCOG Board as the final vision statement for the region. The statement reads as follows:

With regional cooperation as its keystone, the Metro Vision plan promotes a high quality metropolitan setting within which its people will live, work, and recreate. To advance and sustain this future, the region must function as an association of interrelated communities. Recognizing this, the economic, cultural and geographical significance of downtown Denver to the region must be acknowledged. The health of downtown Denver, urban cores and the surrounding communities is necessary for, and synergistically linked to, the success and vitality of the region. To promote the health of all communities in the region, an equitable sharing of the costs and benefits of regional development is needed. This sharing could provide every community the resources to respond to the impacts of growth consistent with a vision for itself, while giving each a stake in quality planning and development for the health of the region as a whole.

Effective and efficient cooperative use of limited resources, whether financial, societal or natural, is essential to achieve the goals of the plan and progress toward a sustainable future. Through the implementation of the regional plan, the region can be a place where its people live close to where they work and play, where a balanced transportation network connects mixed-use urban centers, where urban communities are defined by significant open space, and where cultural diversity and respect for the natural environment are celebrated.

The physical and cultural diversity of the many communities which comprise the Denver region creates the opportunity for a wide variety of economic development initiatives and living styles. Individual communities should prosper by contributing to regional efforts in regional facilities, transportation, air quality, water quality, water supply, waste management, provision of open space and land use mix. In turn, a stronger, more "livable" region will serve to strengthen and sustain its individual communities.

III. PRINCIPLES AND POLICIES

INTRODUCTION

The development of the Denver region has been influenced by many factors in the past. Economic, physical, social and technological forces have all played a role in determining the shape and content of this metropolitan area. While many of these forces have been determined by the private sector, others were the result of public-sector decisions. From the construction of roads to the location of the capital, city, county and state officials have helped shape the modern Denver region.

The same kinds of forces are at work today, helping determine what the region will be like in 20 years. To help guide both public and private decision-makers, DRCOG has proposed a set of principles and policies. These statements should represent the best thinking of the region's citizens regarding the physical conditions with which they desire to live. The 10 Principles each address a major component of the region's growth and development, from the conversion of land to urban uses to the protection of environmentally significant areas. The policies describe more detailed elements of regional growth that must be implemented if the region is to achieve the vision described in the principles.

This section of the plan describes the background of each principle as well as providing the statement of the principle and its related policies. These principles and policies, following public review and DRCOG Board approval, will be used to develop a regional plan map and to define steps needed to implement Metro Vision as a regional development plan.

REGIONAL DEVELOPMENT

The most basic issue in regional development is the rate at which urban development converts other land uses. DRCOG has dealt with this issue by attempting to develop reasonable forecasts of population and employment growth and relating this growth to changes in urban and suburban development. Urban and suburban development has been defined as development occurring at a minimum density of one unit per acre. One approach to deciding on future changes in urban uses is to assess past rates of consumption.

Urbanization in the Denver region has proceeded at an average rate of one square mile per every additional 2,000 persons for the 1960-80 period. While this includes all land uses, it suggests a residential pattern dominated by single-family residences on separate lots. While other types of residential patterns have occurred since 1960 (such as townhomes, condominiums, and zero lot line), these have not been enough to change the overall regional pattern. Employment patterns also have been more dispersed, consuming more land per person. From 1960 to 1980, the average density in the region declined from 4,800 to 3,080 persons per square mile. An analysis of gross densities in the most rapidly growing areas of the region during the 1980-88 period shows an average density of 3,600 persons per square mile of urban land.

While there is not a total consensus on the natural trend in urbanization, a strong argument can be made that densities are not likely to decline from today's average. Household sizes are declining and average ages are increasing, suggesting that residential densities are more likely to increase than decrease. In addition, while hard evidence is difficult to obtain, it is generally believed that continued declines in average densities will exacerbate environmental problems such as air and water quality.

After discussing these trends and conclusions, DRCOG has concluded that the region should strive to create an urban form that, at a minimum, holds the average density at the 1988 level. This would require that land be converted to urban uses at a rate no greater than the rate of population growth. With DRCOG's currently adopted forecast of 2,629,900 for 2010, this would result in the region growing from an urban area in 1988 of about 500 square miles to about 750 square miles in 2010.

The policies with this principle identify a number of forecasting steps that DRCOG should pursue to evaluate the progress being made towards this goal and to adequately plan for other urban needs.

PRINCIPLE

1. THE CONVERSION OF LAND TO URBAN USES REFLECTED IN THE REGIONAL PLAN SHOULD BE AT A RATE CONSISTENT WITH THE POPULATION GROWTH OF THE REGION. THE URBAN AREA SHOULD INCLUDE DENSITIES NECESSARY TO SUPPORT THE OTHER PRINCIPLES OF THE PLAN AND WITH OPPORTUNITIES FOR INFILL AND URBAN INTENSIFICATION AT DESIGNATED CENTERS. IT SHOULD REFLECT THE DESIRES FOR A VARIETY OF DENSITIES AND HOUSING TYPES IN THE METROPOLITAN AREA.

POLICIES

1-1. Encourage a development and land use pattern that will allow and support a transit system in the urbanized metro area.

1-2. The urban area's average density of 3,600 people per square mile is an average minimum overall density. Average residential density will need to be higher than this to achieve the average density of 3,600 people per square mile in the new urban area. Regional population growth will be distributed to support designated peripheral urban centers by increasing densities in these areas. While the total urban area should grow at a maximum rate consistent with population growth, increased densities at urban centers will allow for a variety of housing types and densities, and increased amounts of open space within the urbanized area.

1-3. Prepare long-range forecasts for the eight-county planning area and utilize the adopted forecasts for the eight-county Denver region in all DRCOG planning activities.

1-4. Conduct an annual assessment of the regional population and employment forecasts and distributions, and the Metro Vision Plan Map based on the following criteria:

- a. All local projections, policies, relevant technical studies and information provided by local governments, including any available information on the cumulative effects of approved development proposals.
- b. Current regional population and employment estimates for census tracts, counties, and municipalities.
- c. Changes in population, employment, and other measures of development since the last U.S. Census.
- d. Any surveys, studies or assessments of present and future growth and development made by DRCOG during the preceding year.
- e. Federal and state policies when established by law or administrative regulation.
- f. Significant changes in the Metro Vision's principles and policies, or major new growth assumptions affecting the magnitude, intensity or direction of development.

1-5. Recognize and support the development of designated peripheral urban centers in the DRCOG population and employment projections.

1-6. Use the adopted regional subarea population and employment distributions for all DRCOG planning activities; and prepare additional distributions consistent with the adopted subarea distributions for geographic areas as necessary and appropriate for regional planning activities.

1-7. Utilize appropriate alternative subarea distributions for subarea studies by DRCOG in addition to the adopted distributions to evaluate the effects of different growth assumptions. For other entities conducting local planning studies, the Board of Directors encourages the use of DRCOG's forecast distributions as one of the alternative forecasts considered.

1-8. Encourage local governments to contact DRCOG for updated subarea population and employment forecasts at the start of their comprehensive planning process. This will enable local plans to be compatible with regional projections, and allow the DRCOG staff to work with local staff in evaluating variations from the regional projections.

1-9. Submit new local comprehensive plans and the supporting calculations of projected population and population density to DRCOG. DRCOG will certify plans by local governments for consistency with this principle.

1-10. Encourage local governments in the metro area to evaluate their existing comprehensive plans to ensure that they are compatible with the regional density policy and to adopt the regional development plan as part of their comprehensive planning process.

1-11. Apply the adopted principles and policies of the regional development plan to the Metro Vision Plan Map, illustrating the expected development pattern in 2010 that will be the basis for all other DRCOG planning activities.

1-12. Utilize the Metro Vision Plan Map in all other DRCOG planning activities, particularly in planning for infrastructure networks.

1-13. Use the approved regional subarea population and employment distributions for reviewing projects submitted to DRCOG under the provisions of federal or state law, or administrative regulations. If the projected resident population and/or employment of proposed project is within 15 percent of the DRCOG regional subarea distributions, regardless of the size of the numerical difference between the projection and the distribution, the DRCOG staff will find the projected resident population and/or employment "consistent with regional forecasts and distributions" and will so comment.

1-14. Establish a 50-year (2040) population forecast for the six-county metro region as a population basis for demand calculations associated with major infrastructure planning. This forecast should be only one factor used to ensure adequate facility sizing.

1-15. When sizing major infrastructure facilities, applying a 15 percent upward or downward variation in long-term population forecasts may be appropriate if the underestimating or overestimating infrastructure requirements will result in costly errors in the sizing, timing, and total costs of the project.

REGIONAL EMPLOYMENT DISTRIBUTION

As with most metropolitan areas, employment in the Denver region has traditionally been concentrated in the Denver Central Business District (CBD). Older suburban communities have had their own business districts, which provided some retail and office employment but did not compete with the CBD. Some other concentrations of employment existed in special uses such as universities, hospitals, or airports, but the CBD was the focus for the region. This was reflected in the region's commuting patterns and transportation system.

In recent years, the dominance of the CBD has been challenged by a number of suburban employment centers. This pattern of suburban concentrations of employment is found not only in Denver, but also in numerous other metropolitan areas. Under a variety of terms (activity centers, urban villages, etc.) this trend is being discussed in a variety of forums and publications. Transportation planners are already addressing the impacts on transit systems directed towards CBDs and the issue of suburban gridlock.

DRCOG's past regional plans have encouraged the development of regional activity centers, in addition to a vital Denver CBD. The Regional Development Framework was less explicit than

some plans, partly because of the lack of success in developing an activity center that contained a true mixture of employment and housing. The forecasts used in DRCOG's various planning programs have predicted that a substantial portion of the region's employment growth would occur outside the CBD in areas such as the Denver Tech Center, the new airport, southeast Jefferson County and along E-470 in Aurora. However, the CBD was also assumed to continue growing and still be the dominant employment center in 2010 with 164,700 jobs.

In developing Metro Vision, the region has had to address both the perceived trend towards such employment centers and the impacts of such centers on the region's quality of life. The task force also wanted to find a term for these centers that emphasized their mixed-use character and the probability that some of these centers could locate in Denver as well as the "suburbs." The term used in this plan, "peripheral urban center," is defined as:

A limited number of mixed-use development foci offering opportunities for employment, housing and recreation; at a sufficient size and concentration to achieve a vibrant urban character and to support rapid transit service. Such centers will be characterized by a high intensity core and a pedestrian orientation, with a reasonable pedestrian travel relationship between the core, housing and transit facilities. Peripheral Urban Centers are the first tier in a hierarchy of subregional activity centers providing a range of services and commercial opportunities at the local level.

While no existing center in the region fully meets this definition, some examples elsewhere include Silver Springs, Maryland, in the Washington, D.C. area and Walnut Creek, California, on the San Francisco Bay Area Rapid Transit system.

The concept in this plan of a hierarchy of centers or activity concentrations begins with the goal of maintaining and enhancing the Denver CBD. This will require the provision of adequate services such as transportation to the CBD to allow it to serve this central role. In addition, peripheral urban centers will not happen without strong support from the region and the affected jurisdictions. As these centers are identified, subregional plans should be developed that define the public and private sector actions needed to achieve the levels of activity at such centers. Below the peripheral urban centers are other community centers which, while not specifically identified in the regional plan, serve to focus activity into areas which can be served by local community resources and further define a regional network of activity.

PRINCIPLE

2. CONCENTRATED EMPLOYMENT GROWTH WILL BE ENCOURAGED IN DOWNTOWN DENVER AND IN PERIPHERAL URBAN CENTERS THROUGHOUT THE REGION. DOWNTOWN DENVER AND THE PERIPHERAL URBAN CENTERS ARE THE MAJOR CENTERS WITHIN AN HIERARCHICAL SYSTEM OF REGIONAL, COMMUNITY-LEVEL AND NEIGHBORHOOD CENTERS, WHICH WILL PROVIDE FOR A MORE BALANCED DISTRIBUTION BETWEEN POPULATION AND EMPLOYMENT AND BETTER UTILIZATION OF THE TRANSPORTATION NETWORK. THIS DEVELOPMENT PATTERN WILL RECOGNIZE THE UNIQUE CHARACTERISTICS OF DOWNTOWN DENVER AS THE REGION'S CORE.

POLICIES

- 2-1. Support mixes of employment, housing and retail opportunities at centers of community activity and within designated peripheral urban centers.
- 2-2. Reflect the peripheral urban center concept in local comprehensive plans and actively utilize the concept in local development planning.
- 2-3. Develop guidelines to recognize, designate and support peripheral urban centers using defined criteria. Peripheral urban centers will be limited in number to support their designation as prime foci for development and will be represented on the Metro Vision Plan Map. Criteria for designating peripheral urban centers will be developed in 1993, and designations updated annually during DRCOG's annual process for updating plans (Integrated Plan Assessment).
- 2-4. Periodically evaluate recognized centers in cooperation with local governments to determine if these areas are in fact developing as regional centers and still remain as appropriate elements of the regional plan.
- 2-5. Encourage the Denver CBD as a major high-density employment center, and as a regional center for retail, convention, financial, governmental, cultural and recreational activities.
- 2-6. Plan and implement peripheral urban centers through the actions of local governments, the private market and regional infrastructure investments. Local governments should facilitate development of peripheral urban centers through actions consistent with the adopted regional policy including:
 - a. Specific designation of peripheral urban centers in the adopted local comprehensive plan.
 - b. Preparation of specific plans and programs for the development of designated peripheral urban centers. Such plans and programs should define the geographic area, the types and levels of activities, the anticipated staging and timing of development, the general design characteristics, and required public and private actions for implementation.
 - c. Provision of adequate growth management tools to promote development of the peripheral urban center.
 - d. Encouraging private market decisions that promote the development of peripheral urban centers.
- 2-7. Support revisions of state tax policy to support the designation and development of a limited number of peripheral urban centers in the metro area.
- 2-8. Support local planning and development of peripheral urban centers through DRCOG planning activities.

2-9. Support peripheral urban and other community centers through both regional and local economic development efforts highlighting their competitive and quality of life advantages.

2-10. As part of a regional transit system, ensure that all designated peripheral urban centers will be provided with mass transit service in addition to buses.

BALANCED COMMUNITIES

If one looks around the region, it can be very difficult to determine where the limits of one community end and another begin. Incorporated cities and towns are not necessarily appropriate for defining "communities." They vary in size from a few hundred residents to nearly 500,000 in the City and County of Denver. Physical as well as social characteristics help define communities from the neighborhood perspective to the regional level.

The previous DRCOG plan had a development principle which read, "Balanced communities with a sufficient mix of residential, commercial, industrial, and open space land uses to meet the needs of the residents and of the region should be encouraged." In support of this principle, the plan contained a number of goals under the title of "Community Identity." These were intended to encourage unique and identifiable communities throughout the region.

The goal of balanced, identifiable communities is still a desirable objective for the region. The "employment distribution" principle suggests that peripheral urban centers can be the foci for regional-scale communities with community centers serving to further define subregions. This principle on balanced communities is intended to reinforce that concept by identifying elements of balance which include employment but go beyond that element to others such as income and housing types.

Once the peripheral urban centers are identified, the surrounding "community" can also be delineated. The political jurisdictions within that "community" will be encouraged to work together to define the appropriate indicators of balance and the other elements of community such as open space that will set these communities apart. Joint programs such as the city and county open space efforts in Boulder are one example of steps that multiple jurisdictions can take to create definable communities. Similar efforts to achieve balance between residential and non-residential activity within these regional "communities" will need to be defined, while recognizing individual community land use objectives.

The policies add other elements that will build identifiable communities. The active neighborhood associations throughout the region indicate that people identify with a "neighborhood" within a city or even where no city exists. The regional plan can do more to strengthen the region's neighborhoods by influencing the region's physical development above the neighborhood level.

PRINCIPLE

3. DEVELOPMENT OF A SYSTEM OF BALANCED COMMUNITIES WILL BE SUPPORTED, WITH A FOCUS ON THE INFLUENCE AREA OF EACH PERIPHERAL URBAN CENTER. A "BALANCED COMMUNITY" WILL BE CHARACTERIZED BY A MIX OF INCOME AND HOUSING TYPES, AND WILL HAVE A REASONABLE RELATIONSHIP BETWEEN AFFORDABLE HOUSING SUPPLY, EMPLOYMENT OPPORTUNITIES AND ETHNIC BALANCE. THE SITING OF REGIONAL FACILITIES SHOULD ENCOURAGE THE DEVELOPMENT OF "BALANCED COMMUNITIES" WHILE MAINTAINING THE IDENTITIES OF EXISTING NEIGHBORHOODS.

POLICIES

- 3-1. Encourage communities to offer a desirable mix of land uses, a high degree of *community self-sufficiency in employment and housing*, and high-quality community design and public spaces.
- 3-2. Locate residential development in proximity to peripheral urban centers, community centers, or other concentrations of retail shops, commercial services, and employment opportunities.
- 3-3. Support additional residential development in the Denver CBD to promote a vital urban character and the opportunity to live and work in the CBD.
- 3-4. Encourage a diversity of housing types and costs within communities and the region to expand the region's housing supply, meet diverse housing needs, and provide opportunities to both live and work within the same community.
- 3-5. Encourage rehabilitation or replacement of deteriorated housing stock, community and neighborhood facilities, and places of employment on a timely, cost-effective basis. All rehabilitation activities should be sensitive to the neighborhood and maintain or enhance the integrity of stable neighborhoods.
- 3-6. Equitably distribute the costs and benefits of growth and development throughout the region and between adjacent communities.
- 3-7. Plan region-serving land uses and facilities such as airports, solid waste disposal sites and major cultural facilities on an areawide basis, and locate these in places that maximize the regional benefits and minimize the negative impacts. The benefits of a centralized location, available services and multi-modal transportation service should be considered.
- 3-8. The economic vitality of existing inner-city and suburban areas should be strengthened through renewal of commercial/retail and employment areas where these fit into the hierarchy of planned activity centers.

3-9. Concentrate investments by both the public sector and private sector to facilitate development opportunities such as activity centers that would not otherwise occur.

3-10. Replace the unrecognized subsidies of development with public investment strategies driven by adopted public policy objectives such as those expressed in the regional development plan and local comprehensive plans.

3-11. Balance the investment of regional infrastructure funding between meeting the needs of planned developing areas and improving and redeveloping the existing urban areas.

SERVICE PROVISION

Urban development is dependent on the provision of a number of public services. The amount of development which can occur may be limited by the supply of water, the ability to dispose of wastes, the ability to move from place to place, or even the ability to provide for the safety of the inhabitants. However, the definition of adequate services will vary from individual to individual. The variety of local service providers (cities, counties and special districts) in this region provides a range of services which may offer individuals a choice of lifestyles. While the region may give up some efficiency by having so many providers, it may gain some advantages by offering a variety of levels of urban service.

Planners and other public officials have often argued whether urban services stimulate growth or follow market trends. For example, does a community which invests in excess water capacity attract development? Do areas with crowded schools or highways lose potential development to those with capacity?

These questions lead to a public policy question – should or can development be directed to those areas with capacity? In the Denver region there is no explicit policy that relates development to service capacity. Developers in many cases use special districts to provide services in areas without a public entity. Very few communities evaluate the service impacts of development before approving zoning changes. Unlike communities in some other states, area cities and counties do not require developers to provide facilities to deal with off-site impacts.

In developing the regional development plan, the role of DRCOG in the evaluation of local service delivery systems was considered. No mandate exists from the state for DRCOG to define the proper level of local services. Unless DRCOG's member governments are willing to establish a valid review process for considering their ability to provide urban services, it does not seem worth the time and effort to base the regional development plan on the ability of local governments to provide service.

Even DRCOG's forecast distribution process does not give any preference to those areas with available urban services. The population model assumed that all areas within the regional plan urban boundary would have water available. Areas with water quality problems such as the Cherry Creek basin or segment 15 of the South Platte River were treated as fully not restricted. In addition, local transportation constraints have not been used to allocate growth.

The existing plan had policies about regional infrastructure which suggested that the provision of such facilities is a response to growth rather than a growth stimulant. The Regional Transportation Plan is based on the regional development plan and deals with transportation problems through engineering rather than land use solutions.

While the new regional development plan does not explicitly deal with local plans, it may want to consider local service capability. As a statement about the region's future, the plan can document the expected needs and compare them to the current ability to meet those needs. In addition, the plan can identify a growth pattern that takes maximum advantage of existing surplus service capacity. Once growth exceeds current service capacity the plan should identify a growth pattern which can be efficiently served.

This principle will require DRCOG to identify current capacities in various urban services. Both the regional plan map and the forecast distributions would take advantage of these capacities before expanding into areas needing new service provision. It is proposed that the plan initially consider only transportation, water and wastewater services. However, future updates might include other services such as schools and fire protection.

The results of this effort would include a summary of the need for future service expansions. Instead of leading to local/regional confrontation, this approach may lead to a joint effort to increase the region's service capacities to meet future growth demands.

PRINCIPLE

4. THE FUTURE DEVELOPMENT PATTERN OF THE DENVER REGION SHOULD TAKE ADVANTAGE OF EXISTING CAPACITIES IN THE SERVICE SYSTEM OF THE URBANIZED AREA AND SHOULD BE DESIGNED IN A WAY THAT ALLOWS FUTURE SERVICE TO BE PROVIDED IN A REGIONALLY EFFICIENT MANNER.

POLICIES

- 4-1. Provide for the full range of urban services to incorporated areas, and to developed suburban areas within counties that are expected to remain unincorporated through either the county or some combination of special districts working through a coordinated county plan.
- 4-2. The provision of urban services through special-purpose districts will be subject to the following conditions:
 - a. the number of new special districts should be kept to a minimum;
 - b. existing districts should be consolidated or dissolved wherever possible;
 - c. boundaries of special districts should be coordinated with other districts and with overlapping cities and towns; and
 - d. service through special districts should be considered only when a feasibility study shows that no other option is available.

4-3. Encourage local governments to execute intergovernmental agreements resulting in consistent planning for urbanization affecting their jurisdictions and identifying appropriate service providers for these areas.

4-4. Encourage annexation of unincorporated areas that are developed or expected to develop in the regional development plan subject to the following guidelines:

- a. Annexation should represent a logical extension of a municipality's boundary as reflected in the community's and the county's comprehensive plans.
- b. Annexation should be consistent with the local government's ability and capacity to provide full urban services and facilities to the annexed area at a level equal to the rest of the municipality.
- c. Annexation should be based on a logical program and schedule to provide services and follow the adopted policies of the municipality's comprehensive plan.
- d. Annexation would not have a significantly detrimental effect on the ability of surrounding jurisdictions (cities, counties, and special districts) to continue providing necessary services to their jurisdiction.

4-5. Encourage the incorporation of urbanized and urbanizing areas as one means to consolidate special districts.

4-6. Encourage consistent service/facility design standards for physical infrastructure such as roads and utilities among local jurisdictions.

4-7. Provisions of raw water supply is a central need for regional development and should be provided with adequate reserves to meet long-range demand projections.

4-8. Recognize that water supply has become a regional issue and can best be accomplished through some framework of regional cooperation and common purpose.

4-9. Establish conservation of existing water and energy resources as a primary consideration in all service provision decisions. Increases in the consumption of water and energy should be less rapid than the growth of population. Conservation education and strategies should be key elements of all service plans.

4-10. Allow urban development only in areas where long-term water service can be established or where adequate service can be obtained from an existing water supply system.

4-11. New development should occur contiguous to existing development, and the infill of the existing pattern should be strongly encouraged. Exceptions would be where physical constraints to contiguity such as the Rocky Mountain Arsenal exist, but where full urban services are provided as part of a planned new community. Urban

development should not occur outside of the urban area shown on the Metro Vision Plan Map as periodically amended.

4-12. Minimize long-term capital and operating costs through the appropriate design and layout of regional infrastructure facilities.

4-13. Minimize the need for new capacity by maximizing the use of existing infrastructure capacity consistent with acceptable community standards.

4-14. Maintain and improve the systems supporting existing development to protect existing investment and service levels.

4-15. Phase new development to the ability of service providers to provide adequate facilities and services.

4-16. Support the use of local impact fees or other "fair share" assessments determined by local governments that are directly related to the cost of new development and the need for necessary facilities.

4-17. In regional, state, and federal infrastructure planning and funding processes DRCOG will use the Metro Vision Plan Map and other areawide development policies to advocate for regional infrastructure decisions consistent with this plan.

4-18. Coordinate federal, state and local infrastructure investments to ensure that multiple investments complement and reinforce each other.

TRANSPORTATION

Transportation facilities provide the accessibility necessary for an urban area to function. In some cases, it was a transportation facility, such as a harbor or railroad junction, that created the urban area. Therefore, the planning of transportation facilities goes hand-in-hand with the planning of urban communities.

DRCOG has been analyzing the development impacts of major transportation facilities: beltways, fixed-corridor transit and commercial carrier airports. Each of these facilities requires significant public investment based upon major policy decisions. Decisions regarding such facilities sometimes take into account the anticipated effects on development. However, the actual effects on development are not well understood and may or may not reflect the anticipated effects. The DRCOG studies have reached the following major findings:

- Beltways can encourage growth to fill the area between arterial highways inside of the beltway corridor, resulting in less growth beyond the beltway.
- Beltway corridors are very attractive to a number of industrial categories, with the corridor capturing 25-30 percent of regional employment growth.
- Transit has the greatest impact on growth in the CBD by increasing accessibility to an area which already has great attractiveness.

- Transit station locations have the potential for significant development, if supported by other public policies such as rezoning.
- Development around a new airport is affected by the distance of the airport from the CBD, other existing development, and the direction that growth is going in the region before a new airport is built.
- Airports imposed a number of development constraints that affect the type of development near the airport (limited residential development).
- An airport, much like railroads in earlier times, can stimulate overall regional growth, especially if it removes a bottleneck in the transportation system.

Also, the development pattern can have a significant effect on the performance of the transportation system. Roadway continuity and the location of major arterials must be identified early in the development process to ensure a smoothly functioning transportation system. The "mix" of land uses will determine, to a large extent, the number and length of trips the transportation system must accommodate.

The distributions of population and employment were based on assumptions that include a beltway, new airport, and a transit system. Specific adjustments were made to the distributions for beltway impacts and employment at the new airport. To date, no specific changes have been made to the distributions because of the transit assumption.

The current Regional Transportation Plan contains both a transit system and a beltway. A plan map which anticipates the location of major employment areas should take these facilities into consideration. In some cases, the two facilities may have complementary effects. For example, a transit station near the beltway would be a prime candidate for major employment. However, some of the development impacts may be in conflict. How should the revised plan deal with these conflicts? Should the plan encourage decision-makers to consider the effects of these or other transportation facilities on growth patterns before moving ahead with such projects? If so, how would this be integrated into the decision-making process?

While the current distribution process is fairly explicit in stating its assumptions it may be appropriate to document the effect of major transportation facilities on the population and employment patterns. While there is still much to learn about the relationship of these facilities to growth, the distribution process ought to clearly state the expected impacts.

The development policies based on this principle are intended to help integrate development planning and transportation planning. Topics include, in addition to the major elements of transit and beltways, future right-of-way preservation, roadway network density, mixed use development to lower trips, and locating activity centers near major transportation facilities.

PRINCIPLE

5. THE REGIONAL PLAN WILL REFLECT THE DEVELOPMENT IMPACT OF THE TRANSPORTATION SYSTEM AS SHOWN IN THE REGIONAL TRANSPORTATION PLAN. AS DEVELOPMENT PLANNING AND TRANSPORTATION PLANNING ARE INEXTRICABLY LINKED, THE DEVELOPMENT PATTERN WILL BE DESIGNED TO MAXIMIZE AND COMPLEMENT THE EFFICIENCY OF THE EXISTING AND PLANNED TRANSPORTATION NETWORK. THE TRANSPORTATION NETWORK SHOULD ALSO BE DESIGNED IN A BALANCED, INTEGRATED AND SYSTEM WIDE MANNER.

POLICIES

5-1. Support development only in areas where sufficient transportation systems exist or are planned both on and off site, or where adequate systems consistent with regional plans can be established at the developer's expense to support the development.

5-2. Encourage high-density development and the location of peripheral urban centers in locations where adequate regional highway and transit access can be provided. Peripheral urban centers should be located near freeway access and planned mass transit stations.

5-3. Improve and maintain transportation access to downtown Denver. Give priority consideration to non-automobile modes of transportation as the means of access to and circulation within downtown Denver and other urban centers.

5-4. Reserve right-of-way in newly developing and redeveloping areas for roadways and transit facilities, and for other alternative transportation modes such as bikeways and pedestrian paths. Require that the right-of-way be dedicated to the local government through annexation agreements, development approvals, or other legally binding means.

5-5. Develop a comprehensive system of bikeways, sidewalks and pedestrian paths within each municipality and linked to adjacent areas. Pedestrian and bike access should be provided through new developments as well as between developments. Paths should link residential areas to transit lines. Subdivisions should be designed with pedestrian paths to transit routes operating on adjacent roadways in order to minimize walking distances to transit stops. Design of regional bike and pedestrian facilities should provide for safe and continuous movement as outlined in the Regional Bicycle Plan. Design of highway and transit facilities should also allow for needed pedestrian and bicycle movements.

5-6. Prepare and implement access plans meeting regional standards as part of the local development review process, providing new development with adequate access while protecting the functional integrity of identified transportation corridors. Adequate setbacks should be mandated to reduce transportation-related noise and air quality

impacts, to encourage access control to maintain roadway capacity and to provide adequate approach distances to parking areas.

5-7. Design new development to facilitate access to and development of mass transit and other alternative transportation strategies.

5-8. Design communities to facilitate traffic movement within and through the developed area to reduce air pollution, traffic congestion, and conserve energy.

5-9. Encourage coordination between affected communities to adopt transportation demand management strategies for new and existing development.

AIR QUALITY

Air pollution problems in the Denver region violate health standards and reduce the area's normally excellent visibility. The region's location in the South Platte Valley at a high altitude creates natural conditions for more severe air pollution than other metropolitan areas.

Because the automobile is a major source for the most significant pollutants (carbon monoxide, ozone, and particulates) the travel patterns in the region are under review as one means of reducing air pollution. Some have argued that the Regional Transportation Plan, based on the regional development plan, reflects future travel patterns that will negatively affect air quality. However, there is little evidence available to determine how air quality would vary under different regional development patterns.

The basic assumption behind the relationship between air quality and urban development is that reducing vehicle miles of travel and vehicle hours of travel will improve air quality. If that assumption is valid, there seem to be two approaches to using regional design for reducing travel. One approach suggests that increasing urban densities will lead to more use of rapid transit and other alternatives to the automobile. This approach would be reflected in a regional plan map that placed more employment in downtown Denver and more high-density development along potential transit corridors. The second approach would reduce travel by reducing future downtown growth and locating employment centers near suburban residential development. Less commuting would be directed toward the most congested portion of the region. Highway improvements such as beltways and improvements to suburban transit would connect the various activity centers to their commuting areas and reduce travel demand.

The principle attempts to combine these two approaches. By both locating suburban employment centers near residential development and locating more housing near existing employment centers such as downtown Denver, shorter home-to-work trips will make alternatives to driving more attractive and encourage the use of public transit, which will result in reduced travel. The highway improvements that link suburban activity centers to each other and downtown also will reduce travel by reducing congestion.

This principle is compatible with the employment distribution principle which supports a number of peripheral activity centers. The designation of those activity centers should consider existing and proposed transportation improvements to maximize planned capacity.

PRINCIPLE

6. AIR QUALITY IS A KEY COMPONENT IN THE QUALITY OF LIFE OF THE REGION AND IS AFFECTED BY THE DEVELOPMENT PATTERN AND THE TRANSPORTATION SYSTEM, ESPECIALLY BY THE GROWTH IN REGIONAL TRAVEL. A DEVELOPMENT PATTERN INTENDED TO REDUCE THE REGIONAL TRAVEL OF SINGLE-OCCUPANT AUTOS WILL BE SUPPORTED. THE PLAN WILL IDENTIFY OTHER AIR QUALITY-RELATED DEVELOPMENT TECHNIQUES.

POLICIES

- 6-1. Continue research into the relationships between land development patterns, transportation efficiency and air quality. Implement changes in the land development pattern that will contribute to achieving national, state, and regional air quality objectives, including national ambient air quality standards which protect the public health and improve the region's aesthetic character.
- 6-2. Support the development of a regional hierarchy of peripheral urban centers as outlined in Principle 2 to most efficiently utilize the existing and planned transportation system and reduce overall vehicle miles traveled.
- 6-3. Encourage high-density, mixed-use development at peripheral urban centers, along transportation corridors and major transit lines where these are in proximity to residential areas.
- 6-4. Encourage major new development proposals to concentrate on those land uses, whether housing or employment, that are under-represented in the surrounding area. Principle 3, Balanced Communities, defines the influence area of each peripheral urban center as the appropriate area of concern.
- 6-5. Encourage local governments to review and modify their zoning ordinances to allow for the desired mix of residential and employment opportunities in proximity while ensuring that negative impacts are mitigated.
- 6-6. Encourage local governments to review and modify their development regulations to include controls for wind and water erosion on all bare ground resulting from activities such as grading, construction, recreation or poor land management practices such as overgrazing.
- 6-7. Identify other development techniques which can reduce air pollutant emissions, such as urban forestry, wind design of tall buildings, transit-friendly subdivision design, alternative fuel stations, etc.
- 6-8. Collect and prepare appropriate land use data and population and employment estimates for utilization in the air quality planning activities of the Regional Air Quality Council.

6-9. Support the strategies and implementation actions contained in the State Implementation Plans for the Denver metro region by including air quality concerns in both DRCOG and local planning efforts.

6-10. Private educational awareness program to document the relationship of development to air quality.

WATER QUALITY

Urban development has effects on water quality in two major ways. First, the wastewater generated must be treated before it is discharged into the region's waters, in order to protect the quality of streams and lakes. Second, the stormwater runoff from urban areas can contain sufficient pollutants to result in a degradation of the water quality. To date, these two issues have not affected the location of urban development anywhere in the Denver region. Instead, water quality planners both locally and nationally, have attempted to mitigate the impacts either through better methods of wastewater treatment or through best management practices for stormwater runoff. Although there are no known examples in the region of urban development being discouraged from an area because of the need for advanced wastewater treatment, stormwater treatment has become an issue.

Knowledge about the impacts of stormwater on receiving waters is still being developed. Currently, it appears that streams are able to assimilate stormwater much better than lakes and reservoirs. In the Denver region, studies have shown that stormwater runoff is a major source of pollution for lakes such as Sloan Lake, Cherry Creek Reservoir and Chatfield Reservoir. While much is still being learned about the internal water quality mechanisms in urban lakes and reservoirs, it is likely that stormwater impacts will need to be addressed at some level to protect the uses of these and other water bodies. A new agency, the Cherry Creek Basin Authority, has been created under state statute to ensure that future development in the Cherry Creek basin does not harm the reservoir.

In other parts of the country, local governments are restricting the level of development within watersheds to protect the quality of downstream lakes. The best known example is Lake Tahoe, where the amount of ski condominiums and related development is controlled. Another more urban example is Lake Occoquan in the Virginia suburbs of Washington, D.C. This watershed has been downzoned to an average density of one unit per acre as one step in protecting the quality of this drinking water supply.

The most recent revisions of the federal Clean Water Act by the U.S. Congress indicate that stormwater is a significant source of pollution. A schedule has been placed in the law to require a permitting system for stormwater systems. As this permitting process develops, it may become necessary to treat stormwater in some watersheds. Therefore, urban planners will need to consider the potential impacts on water quality before recommending development in certain watersheds.

It would be desirable for the revised regional development plan to be more explicit about the potential impacts of urban development on water quality. However, it does not appear at this time that a general statement can be made about water quality and urban development.

The areawide water quality planning process, as reflected in the Clean Water Plan, should be the place where plans are identified that will protect these vital water resources in the region.

What may be most relevant to the development planning process is the identification of the appropriate direct watersheds and anticipated development in these areas. This information would be used by the water quality planners to determine appropriate levels of protection, which would be incorporated into the Clean Water Plan. If such plans identify changes to development patterns, the regional development plan should be amended appropriately.

Urban stormwater runoff contains concentrations of pollutants that may cause violations of water quality standards. Best management practices or other measures have the potential to reduce pollutants to allow development to take place without degrading the water body. The Metro Vision Plan Map will identify the direct watersheds of terminal water supply storage facilities as sensitive environmental areas. If development is expected to occur in these areas prior to 2010 then it would be expected that the Clean Water Plan will develop management plans to identify the mitigation measures necessary to protect the integrity of the water supplies. Such mitigation plans should be in place before development begins. Management agencies would be asked to develop these management plans for incorporation into the Clean Water Plan through the update process. If these management plans include changes to development patterns, the update would also include the regional development plan. In addition to water supply reservoirs, the region has many lakes and streams that have other purposes. The uses of these water bodies are protected through the Clean Water Plan. If the Clean Water Plan identifies development-related concerns they should also be incorporated into the regional development plan.

PRINCIPLE

7. THE QUALITY OF THE REGION'S WATER BODIES SHOULD BE PRESERVED AND ENHANCED THROUGH THE IMPLEMENTATION OF THE CLEAN WATER PLAN AND APPROPRIATE DEVELOPMENT TECHNIQUES, WHICH RECOGNIZE THAT WATER POLLUTION IS BOTH CAUSED BY AND HAS NEGATIVE IMPACTS ON REGIONAL DEVELOPMENT.

POLICIES

7-1. Prevent significant development along identified aquifer recharge areas of the deep bedrock aquifers unless such development can demonstrate that it will not reduce existing aquifer recharge. Any development in these areas must include mitigation measures to maintain or increase existing recharge rates. Land uses such as waste injection wells and sanitary landfills should not be permitted over alluvial aquifers or above recharge areas to bedrock aquifers.

7-2. Allow development only in areas where sewer service is available through existing wastewater facilities, where new wastewater facilities can be established consistent with state-adopted stream standards and the regional Clean Water Plan, or in areas where on-site sewage disposal systems are deemed appropriate by the state or local health department.

7-3. Designate stream and river corridor lands as open space or greenways to buffer the region's waters from non-point pollution sources and preserving the physical area necessary for future structural or innovative non-structural mitigation measures, for example, wetlands, for stormwater and non-point source pollution.

7-4. Establish buffer areas that are largely free from urban development around all water bodies (especially reservoirs) to protect them from urban runoff, unless other mitigation measures are developed to protect the receiving body of water.

7-5. Collect and prepare land use, population and employment estimates by service areas for use in water quality planning efforts. Water quality impacts resulting from urban development will be analyzed by the basin or sub-basin unit in a comprehensive approach and to correspond with the jurisdictions of existing management agencies.

7-6. Encourage local governments to update their development policies to reflect water quality concerns contained in the CWP. All development in the region should be governed by adopted grading, erosion and sediment control ordinances that minimize their sediment contribution to the region's waters. DRCOG should provide technical assistance where required and maintain sample ordinances tailored to protect the region's water quality.

7-7. Recognize the multiple interrelationships between air quality, water quality and transportation in such areas as particulates, metal deposition, stormwater and non-point source runoff. Coordinate the different DRCOG and local planning efforts in each of these areas to produce policies and actions that are mutually compatible and reinforcing.

ENVIRONMENTAL QUALITY

The Denver region contains a variety of both opportunities and environmental constraints to development. Some areas are not suited for development because of natural and man-made physical features. The region's counties and municipalities often devote a complete chapter of their comprehensive plans to environmental constraints. Natural areas such as floodplains, high erosion areas, shrink/swell soils, wildfire hazards, unstable slopes, subsidence areas, and other locations that threaten the safety of people and property are identified. Man-made areas such as the Rocky Flats Nuclear Weapons facility, landfills, the Rocky Mountain Arsenal, and areas with aircraft noise and accident potential can present an extreme threat to public safety and also are addressed. Comprehensive plans have policies that limit or in some cases prohibit development in or around areas where environmental constraints exist. If the constraints can be mitigated, development can be allowed to take place.

Identification of areas where environmental constraints exist will affect the location and pattern of growth. The regional plan however, recognizes that in many cases, constraints can be mitigated. Constraints that can be mitigated are shrink/swell soils, wildlife habitats, coal reserves, high groundwater areas, and areas with stormwater runoff into bodies of water. Areas that cannot be mitigated include floodplains, faults, sand, gravel and aggregate deposits, aquifer recharge areas, and several man-made hazardous areas.

The types of environmental constraints will be grouped into those that can be mitigated and those that cannot. Areas where environmental constraints exist that cannot be mitigated will be shown as green on the regional plan map and labeled "protected areas." Where mitigation is possible, a yellow hatch mark (or similar indicator) will serve to flag those areas suitable for development after careful analysis has been completed. The plan map will be a vision of the future and is not to be used as a regulatory document.

PRINCIPLE

8. DEVELOPMENT WILL BE SUPPORTED ONLY IN AREAS WHERE SIGNIFICANT ENVIRONMENTAL IMPACTS WOULD NOT OCCUR OR WHERE ENVIRONMENTAL HAZARDS TO THE DEVELOPMENT CAN BE SAFELY MITIGATED.

POLICIES

8-1. Work with the Colorado Division of Wildlife to identify significant wildlife habitat areas and corridors in the region. Support development in these areas only after an evaluation of the proposal and site by the Colorado Division of Wildlife determines that the impact on wildlife habitat is not adverse and will be mitigated. Areas of significant wildlife habitat includes areas of high species density or diversity, or areas providing for critical needs of food, shelter or reproduction.

8-2. Implement a policy of no net loss of wetlands or riparian areas. Development in the region's higher quality wetlands and riparian corridors should occur only when no other viable alternative exists. At a minimum, lost wetlands and riparian areas should be replaced by areas of similar type, function and [of equal or] higher quality [or larger size] than those affected, as determined by a scientific analysis. Restoration of prior wetlands in the same basin is the preferred compensatory mitigation measure.

8-3. Identify natural areas of significant botanical value in cooperation with interested private and public organizations. Areas of rare and endangered species, of exceptional diversity and of unique associations deserve protection from development. Such areas should be part of the regional open space system or protected through public/private cooperative efforts as part of a regional system preserving representative samples of each natural plant association.

8-4. Discourage development in areas containing commercially viable deposits of sand, gravel and quarry aggregate until such deposits are extracted or extraction is shown to cause serious, adverse impacts on the environment or on existing development that cannot be mitigated.

8-5. Allow the extraction of coal deposits where mining will not have significant environmental impacts and can be carried out in a way compatible with surrounding land uses.

8-6. Allow oil and gas development utilizing techniques and technologies that are compatible with the surrounding land use and environment.

8-7. Support appropriate mitigation measures, as determined by qualified structural and hydraulic engineers, for any development over areas of permanently high ground-water levels. This precaution is necessary to protect development and prevent regional groundwater pollution.

8-8. Continue development of drainage basin plans providing storm drainage and flood control facilities and management strategies to prevent local drainage and flooding problems, and reducing the basinwide flood potential resulting from urbanization.

8-9. Prevent development within the 100-year floodplain and any fill of the floodplain inconsistent with the approved standards of the Federal Emergency Management Agency that would reduce the flood-carrying capacity. However, parks, recreation, and open space uses are encouraged in floodplain areas.

8-10. Implement adequate wildfire hazard mitigation measures prior to development in wildfire hazard areas and discourage development in areas of extreme wildfire hazard.

8-11. Discourage development on identified landslide deposits or potential landslide hazard areas unless the hazard can be mitigated through engineering design following site and sub-surface investigation and evaluation by a qualified engineering geologist.

8-12. Support development in ground subsidence hazard areas only if the hazard can be safely mitigated or it is shown that little or no risk of damage exists on the specific site.

8-13. Support effective mitigation measures, as determined by a qualified soils engineer, to prevent structural damage for any development in areas of soil shrink-swell hazard.

8-14. Discourage development on known fault traces and build general construction to zone 2 standards of the Uniform Building Code (e.g. earthquakes) where significant ground motion acceleration is possible. Design development adjacent to inactive faults to locate septic system leach fields far enough away from the faults to avoid the possibility of contaminant leakage to the groundwater supply.

8-15. Do not allow development in the area of potential man-made hazardous areas until the appropriate local, state and federal authorities conclude that such development will not threaten or endanger public health, safety or personal property.

8-16. Support the discontinued use and rehabilitation of hazardous facilities that are inappropriately and unsafely located in the populated metropolitan area.

8-17. Allow noise sensitive development (e.g., residential, educational, institutional, and hospitals) in areas where noise levels are greater than 65 Ldn (average day-night noise levels) only when appropriate noise reduction measures are taken to reduce the exterior-to-interior noise levels.

8-18. Ensure that airport siting includes provisions for adequate surface access and for continued compatibility between airport operations and surrounding land uses.

OPEN SPACE

Defining open space goals at the regional level can be difficult. Regional interest usually goes beyond the definition of neighborhood parks, although a regional standard may be helpful in setting local goals for such facilities. Instead, regional open space planning concentrates on major facilities that are needed to serve multiple jurisdictions and that link the elements of individual communities into a regional system.

In 1975, DRCOG completed a Regional Parks, Recreation and Open Space Plan. The Plan identified the region's outdoor recreation needs and made recommendations that relate to trails, high country, open space incentives, and joint-use facilities. Recommendations were also written for local park, recreation and open space development. The recommendations were developed for informational purposes but they were also to serve as potential policies for local adoption. When the Regional Growth and Development Plan was written in 1978, the Regional Parks, Recreation and Open Space Plan was used as the basis for the three regional policies used in the plan. Later in 1985, the Regional Development Framework added four more policies. Since then, DRCOG's involvement has been limited to maintenance of maps of open space areas for the six county region.

Today the majority of large open space acquisition around the region is occurring in Jefferson and Boulder Counties. In Jefferson County, efforts to preserve large tracts of land in the mountainous areas and the lower foothills have resulted in approximately 16,000 acres of public protected lands in the county as of December 1988. Boulder County and the City of Boulder have been equally aggressive in acquiring open lands. Between them, over 29,000 acres have been purchased for open space. Boulder City and Boulder County hope to use the open areas to buffer communities from each other to avoid the urban blending that happened in Denver when the suburbs at the city's boundaries began extending outward.

In Arapahoe County, the City of Aurora is currently studying open space opportunities for its growth area to the east for an open space plan that addresses the future needs of Aurora residents. In 1986, Douglas County incorporated an open space element into its Comprehensive Plan for the first time since comprehensive planning for the county began. The Platte River Greenway has been successful in preserving linear open space along the major rivers that bisect the metropolitan region. Some communities have preferred to focus their open space efforts on smaller-scale, neighborhood parks and others have turned their attentions to other matters, more pressing to the community, and have not been active in the pursuit of open space.

Regional open space is recognized as an effective way to protect environmentally significant areas, shape urban growth and development, and provide for the recreation needs of the region. Past efforts at DRCOG have identified these uses for open space at the regional level:

- to provide physical and aesthetic enjoyment of the out-of-doors;
- to shape the region's pattern of growth and development;

- to preserve significant scenic views of the Rocky Mountain Front Range; and
- to protect natural resources including agricultural lands.

To date, there has been no attempt regionally to identify areas that should be preserved as open space (to meet the four uses) with the exception of those areas that were designated as protection areas on past plan maps. Areas on the maps included floodplains, larger parks, and areas such as Rocky Flats and the Rocky Mountain Arsenal that are inappropriate for development.

This region is actively promoting and expecting a great deal of growth between now and the year 2010. Open lands will be consumed by suburban development to accommodate this growth and unless it is planned now, open space opportunities will be lost forever.

This region is fortunate to have the Rocky Mountain Front Range so close to its western boundary. Acquisition of open space can help preserve and protect the mountain views from urbanization that can spoil this valuable resource. Other natural amenities such as parks and waterways, can also be protected with open space designation. Some communities, for example the City of Boulder, are using open space to define their urban form. Most communities are using open space to connect trails and are creating an extensive trail network along the Platte River and its tributaries. Since all of these amenities extend beyond individual jurisdictional boundaries, it is important that the open space issue be addressed at the regional level. The plan map will provide a regional picture of a coherent, connected regional system of potential open space areas.

The regional development plan map is intended to have an explicit open space element that illustrates these principles. This will require the identification of scenic views throughout the region, the mapping of a regional trail system (at least at a sketch planning level), the definition of appropriate open space elements to achieve the desired regional form, and suggestions for regional park facilities to meet the expected growth in population. While the 1991 Metro Vision Plan can begin to address these elements, the open space portion of the plan map will need to be further developed in future updates.

PRINCIPLE

9. AN INTEGRATED, LINKED, PERMANENT OPEN SPACE SYSTEM SHOULD BE PLANNED TO CONSERVE AND PROTECT IMPORTANT NATURAL RESOURCES, TO PROVIDE FOR THE PHYSICAL AND AESTHETIC ENJOYMENT OF THE OUT-OF-DOORS, TO SHAPE THE REGION'S PATTERN OF GROWTH AND DEVELOPMENT, TO PRESERVE THE REGION'S AGRICULTURAL RESOURCES, AND TO PROTECT PROMINENT FEATURES SUCH AS THE VISUAL BACKDROP OF THE ROCKY MOUNTAIN FRONT RANGE. THIS SYSTEM WILL INCLUDE A VARIETY OF OPEN SPACE TYPES AND PROVIDE ACCESSIBLE OPEN SPACE TO ALL THE REGION'S POPULATION.

POLICIES

- 9-1. Plan and develop a coherent, connected regional system of open space lands in both public and private ownership by state, regional, and local agencies. A regional open space system will require permanent preservation and maintenance of key open space parcels to meet areawide open space goals. Open space is increasingly

valuable as a visual relief from the urban environment, an opportunity for recreation, education and aesthetic enjoyment, for protection of regional views, and as a refuge for native plant and animal species.

9-2. Develop a regional open space system encouraging passive recreational activities but focused on protecting wildlife habitats and wildlife, preserving significant natural and archeological features, and protecting environmentally sensitive areas.

9-3. Encourage the development of outdoor recreational facilities serving a variety of identified needs and maximizing accessibility and use in the Denver region. While in some cases these facilities may be located in open space lands, they should not detract from the open space values of these areas.

9-4. Establish linkages among state and local trail and open space programs in developing an open space plan for the region and to secure funding for implementing the plan. In particular, multi-purpose projects which link open space objectives with recreation, flood control, water quality enhancements, irrigation and alternative transportation efforts should be pursued to increase support and funding alternatives for open space.

9-5. Develop an areawide trails network to link open spaces and provide access for their use. This network should take full advantage of all potential connections including road and railroad right-of-ways, flood plains, ditch service roads and utility corridors.

9-6. Incorporate the designated environmental protection areas shown on the DRCOG Metro Vision Plan Map into the regional open space system where appropriate. This linkage recognizes the generally compatible objectives of protecting environmentally sensitive areas, siting development to avoid natural hazards and providing increased recreational and aesthetic enjoyment opportunities.

9-7. Preserve and utilize open space lands to protect the scenic views and natural environmental amenities of the region. In particular, stream and river corridor protection promoting the development of greenways fulfilling open space, recreation, water quality, wildlife and flood protection values is given top priority. The values provided by waterway corridors are particularly significant in the arid west.

9-8. Acquire or reserve open space lands and agricultural lands in advance of urbanization and in conformance with adopted local and regional plans. A full range of protection strategies should be pursued including fee purchase, purchase of development rights, transfer of development rights, zoning, conservation easements and donation.

9-9. Preserve and maintain open space buffers and natural geographic features as a means to retain and enhance the distinct physical boundaries of communities throughout the region.

9-10. Preserve and utilize open space lands as a means of shaping future growth and encouraging a compact form for the individual communities of the Denver region.

9-11. Maintain a regional inventory of existing trails, open space lands and environmentally significant or sensitive areas to be used in all regional planning activities. Support the open space plan and minimize the negative impact of regional facilities on open space lands by including open space considerations in all planning activities.

REGIONAL AESTHETICS

It is not often considered that a metropolitan area has an identifiable "regional urban design" or "regional aesthetic." However, many major metropolitan centers in the United States are immediately recognized because of unique regional features. San Francisco with the Golden Gate Bridge and New York City with the Statue of Liberty and the World Trade towers are just two examples. These significant physical features contribute to the identification of a place among the region's residents, but are only one element of regional identity. Both communities just mentioned also are perceived as highly sophisticated, "cosmopolitan" places and centers of economic and cultural activity.

What image does the Denver region present to the world? Our history as a frontier community and mineral extraction center is well known. In the era of Mayor Speer, the region was a leader in the City Beautiful movement. Civic Center and Speer Boulevard were models for other cities to emulate. The mountain park systems of Denver and Boulder were early examples of urban dwellers setting aside lands for recreation and protection.

The region's national identity continues to contain a strong element of this "outdoors" ethic. While having only two ski areas (Eldora and Loveland) within the region, Denver is perceived nationally as a ski center. The area serves as the gateway to the wide range of outdoor recreational activities of the Rocky Mountains. The region's setting at the foot of the Rocky Mountains is also well established.

However, the urban character of the region is less defined. While pictures of the downtown skyline are often used as the "Denver" identity, without the mountains in the background, would the picture be readily identified as Denver? Is there a uniqueness to the urban character of the region, other than its natural setting, that can be defined and developed as the "regional aesthetic"? In addition, what is the role of individual communities within the larger urban setting?

The regional development plan, through the following principle, explicitly supports improving the quality of life of the region's citizens through good regional design and aesthetics. While DRCOG has no current role in reviewing the design of specific projects, the plan encourages project sponsors to fit each project into a general concept of the Denver region. This may require projects to be sensitive to both the region's distinctive environmental setting and regional history.

In addition to basic quality of life benefits, the region's urban design also affects the region's economy. Since tourism is a major industry both for the region and the state, the regional plan should be sensitive to the impression the region makes on its visitors. Both the scenic vista of the Rocky Mountains and the exceptional urban features are important to attracting tourists to the region. A second economic impact is the effect of the region's urban design on the locational decisions of large and small businesses. If the region is intentional about good

regional design, it should be able to attract more businesses, especially companies concerned about the quality of life of their employees.

While this principle will not have as direct a connection as other principles to the regional plan map, it is an essential component of a statement of "regional vision." The principle should provide an underlying motive to the choices expressed in the regional plan map.

The policies are intended to support this design principle on both regional and community levels. Regional policies include items such as regional view protection and gateway development. Regional roadway corridors may offer one of the best opportunities for creating regional aesthetics. Landscaping, signage and the relationship to utility corridors are all possible techniques for using corridors as regional design elements. Policies at the community level should deal with community identity, pride of place and the relationship of individual communities to the region.

PRINCIPLE

10. THE AESTHETIC QUALITY OF THE METROPOLITAN AREA IS A MAJOR ELEMENT IN THE QUALITY OF LIFE. QUALITY DESIGN AT ALL LEVELS WILL BE SUPPORTED IN ORDER TO PRODUCE AN AREA CHARACTERIZED BY VARIETY, VISUAL HARMONY, AND A GENERALLY RECOGNIZED SENSE OF BEAUTY. APPROPRIATE DESIGN SOLUTIONS WILL RECOGNIZE THE REGION'S NATURAL CHARACTERISTICS AND REINFORCE ITS UNIQUE SETTING AND LIFESTYLE.

POLICIES

10-1. Promote the identification, preservation, restoration or rehabilitation of significant historic and archeological structures, sites and districts by local communities. Such sites will be shown on the regional plan map when appropriate, and will be protected in planning of regional facilities.

10-2. Encourage each community to develop an individual identity by defining its unique characteristics and role within the metropolitan region. The role of local communities and neighborhoods should be recognized and supported in local and regional planning and development activities.

10-3. Include in regional and local comprehensive planning efforts an analysis of significant views and visual features, and provisions to protect significant viewsheds through appropriate siting and design control guidelines.

10-4. Support new development and redevelopment that promotes community identity, maintains the integrity of existing communities and is reflective of the history and natural amenities of the area. Such development should take advantage of Denver's strong western history, the connection to outdoor and recreational activities, scenic views of the mountains and ample opportunity for solar design.

10-5. Promote new development providing economic growth and social programs that will improve the quality of life for all the region's inhabitants. Quality of life should be

broadly considered to include the physical, mental and spiritual health of the region's residents; and the right to live and work in a peaceful, healthy and aesthetically pleasing environment.

10-6. Reflect in local plans and development review activities the best of a community's design principles and a continual improvement of the region's design aesthetics. Local planning activities should include concerns with regional view protection, gateway development, landscaping requirements and the promotion of water conservation, signage and the treatment of utility corridors.

GLOSSARY OF TERMS

<u>Activity Centers</u>	Centers of human activity with a mix of urban activities in a relatively small geographic area. The hierarchy of activity centers in order of descending intensity is: regional, community-level and neighborhood center.
<u>Best Management Practices</u>	BMPs are both structural controls and regulatory policies designed to prevent non-point source water pollution.
<u>Comprehensive Plans</u>	An official statement of the goals, policies and intentions pertaining to physical development of a geographic unit such as a region, county or city.
<u>Developed Area</u>	Areas of urban and suburban development with a minimum density greater than one dwelling unit per acre.
<u>Distributions</u>	The allocation of forecasted demographic information to subareas within a region.
<u>Forecasts</u>	Future projections of population, employment and households for a region adopted by policy which are used in regional planning and provide local governments a measure of future demands for goods and services.
<u>Infill</u>	The policy of directing development density to existing vacant land within the urban area.
<u>Influence Area</u>	The geographic area surrounding a peripheral urban center within which people will prefer to use the center's services and employment opportunities because of convenience, travel time and distance considerations.
<u>Infrastructure</u>	The basic physical facilities such as roads, water and sewer lines and treatment plants, and power utilities necessary to support a population in either an urban or rural area.

Peripheral Urban Centers

A limited number of mixed-use development foci offering opportunities for employment, housing and recreation at a sufficient size and concentration to achieve a vibrant urban character and to support rapid transit service. Such centers will be characterized by a high intensity core and a pedestrian orientation, with a reasonable pedestrian travel relationship between the core, housing and transit facilities. Peripheral Urban Centers are the first tier in a hierarchy of sub regional activity centers providing a range of services and commercial opportunities at the local level.

Projections

The extrapolation of demographic information to a time in the future.

Rural

Areas where the natural environment predominates and where human structures and activities are incidental or compatible with the natural landscape. Residential densities are less than one unit per acre and public services are limited or non-existent.

Subarea

A geographic portion of a larger region based on local planning boundaries or census geography.

Suburban

Areas dominated by human activities and structures, but with a significant percentage of land surface retaining a vegetative cover. The natural environment is more apparent than in urban settings and the dominant land use is single-family detached residential. At a minimum, the basic services of public safety, water and sewer are provided.

Urban

Areas of intensive human use with most of the land covered by structures or transportation facilities (roads). The natural environment is dominated and generally controlled by man-made facilities and structures. Urban areas are characterized by mixed uses, vertical development and a complete set of public services and facilities.

Urban Intensification

The increase of residential and commercial activity within an existing urban area through infill and redevelopment.

