

Arthur Turner

LARIMER-WELD REGION LAND USE ALTERNATIVES

ANALYSIS OF 20 YEAR GROWTH DEMANDS AND IMPACTS CITIZENS SUMMARY



Water Quality Management Plan

PREPARED BY
LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS
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NOVEMBER, 1977



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December 20, 1977

Dear Citizen:

The Larimer-Weld Regional Council of Governments is pleased to submit the following Citizens' Summary on the Larimer-Weld Region Land Use Alternatives - Analysis of 20-Year Growth Demands and Impacts for your review. This document was prepared by staff and consultants under a U.S. Environmental Protection Agency Water Quality Management Technical Assistance Planning Grant and will serve as the basis for formulating plans for air quality, transportation, and water quality management for the Larimer-Weld Region (State Planning Region 2). Citizens, elected officials, and professional planners and engineers contributed many hours to the preparation of this document.

The purpose of the report is twofold: to promote discussion on how the citizens of the region as trustees of land, air, and water resources for future generations wish to see the region grow and function; and to provide a sound technical basis for decision makers to set policies and implement programs which are socially and environmentally conscious and fiscally responsible.

The analysis contained in the summary does not attempt to examine growth and land use demands on a detailed community or neighborhood basis. Rather, it is a regional analysis which illustrates how land use changes in one or more areas of the region could impact the region as a whole.

This report is a document prepared for discussion purposes. Following Public Hearings on the land use alternatives, the report will become, in part, an element of the Regional Comprehensive Plan required by the U.S. Department of Housing and Urban Development.

Sincerely,

Margaret G. Radice
for Charles D. Bowling
Chairman, Larimer-Weld COG

CDB/dlt

LARIMER-WELD REGION LAND USE ALTERNATIVES
ANALYSIS OF 20 YEAR GROWTH DEMANDS AND IMPACTS
- CITIZENS' SUMMARY -

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DISCLAIMER

This report has been reviewed by Region VIII, U.S. Environmental Protection Agency and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the U.S. Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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CHAPTER 1.0 INTRODUCTION

This Citizens' Summary report on the Larimer-Weld Region Land Use Alternatives--20 Year Analysis of Growth Demands and Impacts briefly describes the development and analysis of five alternative land use futures for the Region. The analysis is conducted in the framework of developing a regional land use plan, integrating various aspects of physical land use, water quality, and transportation planning.

The alternatives and the procedures by which they were developed are discussed in more detail in the annotated version of this report, which is available at the Larimer-Weld Regional Council of Governments office in Loveland. It is the intent of this citizens' report to summarize the findings and recommendations from the longer report.

1.1 SCOPE AND PURPOSE

The key to all land use related physical planning programs is an inventory of existing features and conditions, and projections of how these features may change over time to meet anticipated needs resulting from changes in population growth. The objective of this document is to summarize the physical planning base developed for the Larimer-Weld Region (State Planning Region 2).

In April 1975, the Larimer-Weld Regional Council of Governments was designated an Areawide Waste Treatment Planning Agency by the Governor of the State of Colorado. With this designation came a responsibility for the Council of Governments to develop through the use of federal grant monies supplied by the U.S. Environmental Protection Agency, an Areawide Waste Treatment Management Plan. The federal law which authorized such a study was Section 208 of the Federal Water Pollution Control Act Amendment of 1972 (Public Law 92-500).

In order to develop an Areawide Waste Treatment Management Plan and to identify and begin a process to control all sources of water pollution in the Region, inventories and projections of economic activities, population, land use, man-made and environmental features of the region were prepared. This data and analysis is a common basis on which to develop regional air quality, transportation, and land use, and other physical and social planning programs.

1.2 SUMMARY OF THE LARIMER-WELD PLANNING PROCESS

The regional land use planning aspects of the Larimer-Weld Plan can be divided into the following six major phases: 1) Program Formulation; 2) Inventory of Existing Conditions; 3) Analysis of Opportunities and Constraints; 4) Generation and Evaluation of Alternative Concepts; 5) Final Plan Selection; 6) Final Plan Implementation and Maintenance (see Figure 1.2). This report summarizes the work completed during the first four phases of this process.

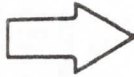
Public participation has been, and will continue to be, an important component of the Larimer-Weld land use planning process. From the initial definition of the goals and objectives through the generation of the alternative concepts, a citizen's advisory group worked closely with the staff and land use planning consultant. This group was composed of two committees established by the LWCOG: the Land Use and Transportation Committee, and the 208 Land Use and Population Subcommittee. The combined group included representatives from the rural and urban areas of both counties. In addition to the active involvement of this citizen's group, as discussed in subsequent sections of this report, the general public has had the opportunity to attend the advisory group's meetings and review the material documented in this report at public information meetings. Formal public hearings will be held in the future by the regional 701 staff to solicit additional input from the residents of Larimer and Weld Counties concerning the alternative land use concepts presented herein. The selected plan alternative will be presented for adoption by the Larimer-Weld Council of Governments Governing Board and presented to the Department of Housing and Urban Development (HUD) for certification by April 1, 1978.

1.2.1 Program Formulation

It was determined during this phase that land use planning for the Region would be completed at two levels of detail. Within an approximate 2000-square mile area (Core Area), extending from approximately 10 miles north of Fort Collins to the southern border of the counties, and from the foothills in the west to central eastern Weld County, detailed planning was to be conducted (See Figure 1.2.1). Within the remainder of the two-county area a more generalized approach was to be followed, except in a limited number of areas where growth or development was judged to be a critical factor. This decision reflects the presence of 90 to 95 percent of existing development and population in the Core Area. Additionally, it is anticipated that the majority of future regional growth will occur in the Core Area. This differentiation is evident throughout the land use planning program and this report. Certain information has been compiled for the entire Region, while other information and analysis focuses primarily on the Core Area.

LARIMER--WELD REGIONAL LAND USE PLANNING PROCESS

PROGRAM FORMULATION



**INVENTORY OF
EXISTING CONDITIONS**

- LAND USE
- WILDLIFE HABITAT
- SOILS
- LANDFORM
- SURFACE HYDROLOGY
- WATER DISTRICTS
- SANITATION DISTRICTS
- EXISTING POLICIES



**ANALYSIS OF
OPPORTUNITIES AND CONSTRAINTS**

- ENVIRONMENTAL SUITABILITY
- ECONOMIC ATTRACTIVENESS
- AGRICULTURAL SUITABILITY



**GENERATION AND EVALUATION
OF LAND USE ALTERNATIVES**

- HISTORIC TRENDS
- CITIZEN COMMITTEE
- LOCAL AND REGIONAL PLANNERS
- CONSULTANT RECOMMENDED



PLAN SELECTION

- GOVERNMENT REVIEW
- PUBLIC REVIEW



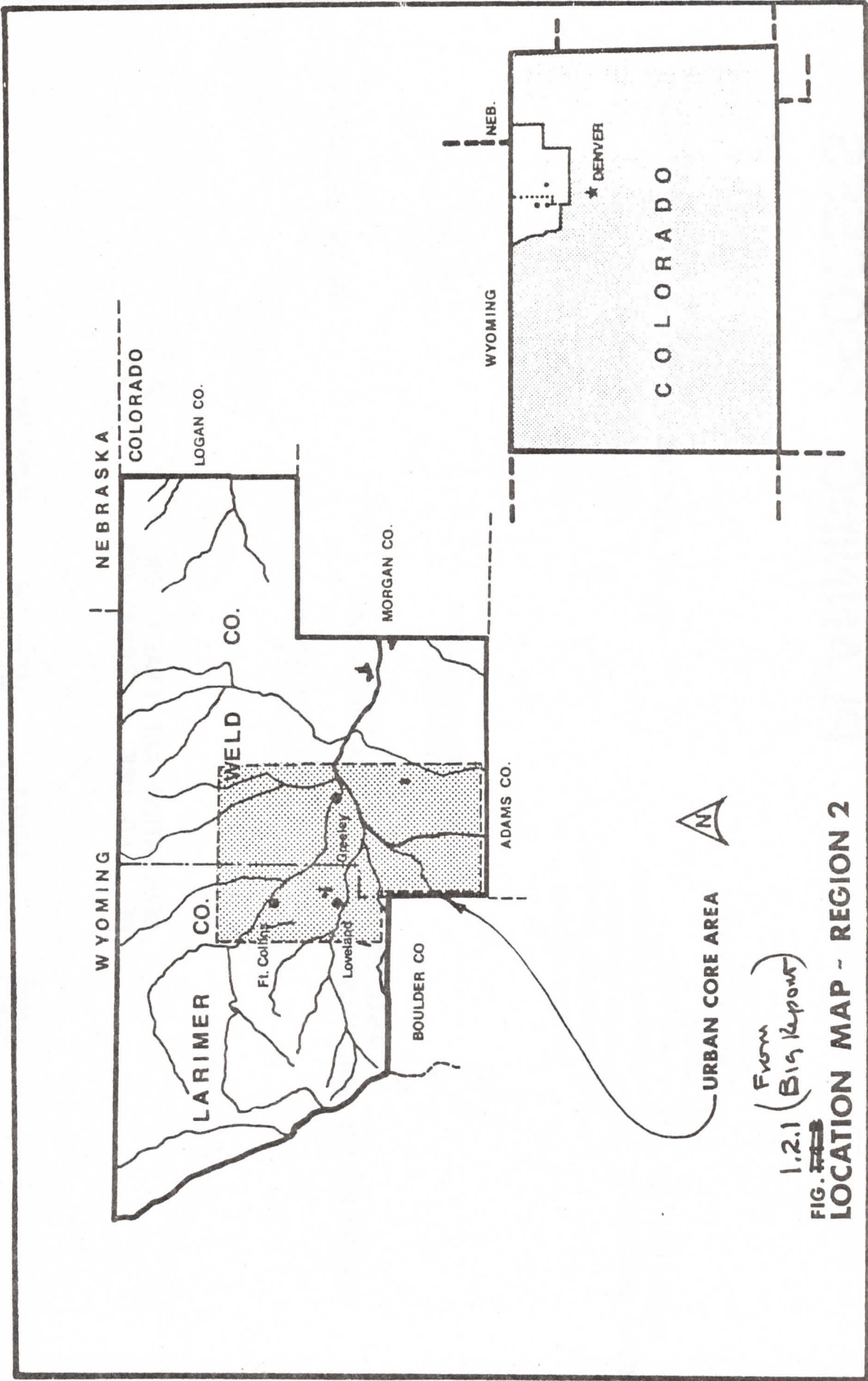
PLAN IMPLEMENTATION AND MAINTENANCE

- LOCAL GOVERNMENT ADOPTION OF LAND USE STRATEGIES
- PERIODIC REVIEW AND UPDATE

4
m

FIG. 1.2

(From Big Report)



From
1.2.1 (Big Report)

FIG. 1.2.1
LOCATION MAP - REGION 2

1.2.2 Inventory of Existing Conditions

Prior to determining potential patterns of future land utilization, it was necessary to understand and document those characteristics of the Region which could influence that pattern. This information represents opportunities or inducements, and constraints on the use of the land.

To facilitate evaluation and manipulation of the data regarding the Core Area, a computer data base was constructed. This base incorporates information pertaining to man-made and environmental systems. Man-made systems refer to any physical action taken by man that alters an existing natural state. The data collected and mapped in this category includes existing land use, sanitation districts and service areas, and circulation and transmission systems. Natural environmental systems information collected and mapped includes wildlife habitat areas, soil characteristics (erosion hazard, building site soil constraints, septic tank limitations, and agricultural capability), landform, and surface hydrology.

1.2.3 Analysis of Opportunities and Constraints

The pattern of land utilization results from the interaction of economic, social, environmental, and political factors in the Region. The presence of a condition or a combination of conditions made each parcel attractive, or "suitable," for a particular land use. A series of computer-generated maps incorporating the data compiled in the preceding phase was prepared to illustrate the suitability of the Core Area to accommodate a variety of land uses. The suitability analysis utilized 40 acre rectangular grid data cells, considered adequate for this regional study but not sufficient for detailed site planning. Land use suitabilities have been assessed for:

1. Urbanization as measured by environmental hazards and sensitivities (or attractiveness for resource conservation and open space).
2. Urbanization as measured by economic attraction of resources, assuming: a) low attraction for irrigated agricultural land; b) high attractiveness for irrigated agricultural lands; c) low attraction for irrigated agricultural lands and high attraction for sanitation service; d) high attraction for irrigated agricultural lands and sanitation service.
3. Agricultural production as measured by attractiveness for the resources.

Land use suitability models were developed jointly by the consultant and city, county, and regional planners.

Each evaluation of land use suitability is not isolated from all others. If this were the case, land use decisions would be quite simple (e.g., build in sewerred areas, do not build in floodways, etc.). In reality, any area may be suitable for differing uses at various levels of private or public costs. For example, it is quite possible that a sewerred area may occur in a floodway. However, a conflict may exist as to whether or not that parcel should be utilized for urban type land uses. Alternative courses of action must be identified and their consequences examined. The importance of the use, significance of the problem, and the cost of mitigation must be carefully weighed.

1.2.4 Generation and Evaluation of Alternative Concepts

Formulation of alternative land use concepts involved the forecast of regional population growth, development of land use demands, and generation of the alternatives. Five alternative concepts were developed for the Core Area for the year 2000.

The first step in formulating the alternatives involved the documentation of regional population growth forecasts and translation of these into corresponding land use demands. Initially, a comprehensive overview of the demand for additional population in the Region was analyzed. These projections were subsequently disaggregated for each of the communities within the Core Area based on an evaluation of the growth potential of the individual community in comparison with the regional growth projection.

Land use alternatives formulated by the citizens' committee and the city, county, and regional planners were developed with the assistance of a land use modeling exercise. The exercise was structured to enable the citizens' committee and the local planners to physically allocate "units" of land use consistent with projected land use demands. Allocations were made relative to residential, commercial, industrial, institutional, and community recreational land uses demanded by the year 2000. Two land use allocations were prepared by the citizens' committee. Maps were prepared to illustrate their output and were reviewed with the regional, county, and city planners. Subsequently, the local planners conducted the same exercise, allocating their preferred patterns of land uses. This, as well, was graphically illustrated.

Additionally, an alternative illustrating the continuation of present development trends in the Core Area was prepared. This alternative was based on review of the historic patterns

of regional land use development, with particular attention focusing on subdivision during the last five years. Continuation of these trends to the year 2000 was projected.

Based on the review of the land use alternatives and preferred policy directions defined by the citizens' committee and city, county and regional planners, and on evaluations of the environmental, economic, and social consequences of those alternatives, the consultant prepared a recommended land use alternative to guide the orderly use of land to the year 2000. Principal tasks conducted to derive the recommended plan include:

1. Definition of the principal land use issues which surfaced in the formulation of alternatives and their assessment.
2. Specification of a recommended set of policies to resolve defined issues.
3. Application of the policies to the allocation of land uses in the Core Area.

The recommended strategy is oriented towards the accommodation of land use growth in a manner which maximizes the efficient use of available resources, without incurring unalterable detrimental impacts.

1.2.5 Plan Selection

This report presents the land use alternatives for the Region. These alternatives will now undergo rigorous analysis through the remainder of the Areawide Waste Treatment Management Program and will be formally reviewed by the public at information meetings and hearings. Subsequent to these reviews, a plan will be selected by the elected officials of the Larimer-Weld Council of Governments Governing Board and Council of the Whole, and submitted to the U.S. Department of Housing and Urban Development for certification as the Larimer-Weld Regional Land Use Plan.

1.2.6 Plan Implementation and Maintenance

Once the land use plan for the Region is adopted by the LWCOG Council of the Whole, the next step of the planning process is to implement and maintain the plan. The responsibility for implementing any land use plan ultimately rests with the city and county governments in the Region. A regional plan is effectively implemented when local plans are consistent with the regional plan. The policies of existing local plans have generally been incorporated into

the recommended alternative. As new local plans are developed, consideration should be given to the framework established in the regional plan, and the regional implications of the newly developed local plan. This is not to imply that the regional plan should be considered as an "absolute" in developing new local plans, but rather that its recommendations be judged according to their relevance. If the local government elects to adopt a plan that differs in intent and application from the regional plan, the LWCOG should consider the appropriateness of revisions to the regional plan. In those cases in which the local plan is deemed to adversely impact or is inconsistent with regional goals and objectives, the LWCOG should work closely with local representatives to resolve pertinent issues and conflicts.

CHAPTER 2.0 LAND USE ALTERNATIVES

To permit a detailed evaluation of the impacts of urban land use patterns on the quality of the Region's water resources, and a general evaluation of the impacts on environmental, economic, and sociocultural resources, four land use alternatives were developed for the Core Area.

Alternative A, reflecting the land use patterns expected to result if the existing trends in land use decisions continue throughout the planning period, was prepared by the consultant. Alternatives B and C were developed by the Citizen's Committee. Alternative D was developed by members of the city, county, and regional planning staffs.

A land use allocation gaming technique was used to develop Alternatives B, C, and D. This technique was developed to provide the Citizen's Committee and the professional planners with a tool that would enable them to allocate projected regional land uses within the major urban communities and those unincorporated areas expected to experience extensive growth pressures. This technique is not amenable to the allocation of land uses to the smaller communities in the Region, although in some cases such allocations were made. Therefore, land use Alternatives B, C, and D best reflect alternative land use patterns for the major urban areas and not for the smaller communities. The consultant was not so constrained in the development of Alternative A, since past land use decisions made by the City and County decision makers were evaluated, and then land uses were allocated to each community and the unincorporated urbanization areas.

The land use alternatives discussed in this Chapter are based on consistent population projections and associated land use demands. The maps included are generalized concepts of detailed maps available for review at the Larimer-Weld Regional Council of Governments office.

2.1 REGIONAL POPULATION PROJECTIONS

As the basis for land use planning, water quality, transportation, and air quality planning, the Larimer-Weld Council of Governments (LWCOG) has developed regional population projections in close coordination and with the assistance of the Colorado Division of Planning, which is the agency authorized by the State of Colorado by Statute CRS(1973)24-32-204 to prepare "official projections" for the 12 State Planning Regions.

The regional population projections (Table 2.1) and the procedures used to derive them are not based on implied or adopted local or state policies designed to manage growth within the Region. They are based on the best available locally derived projections of the trends in economic activity within the region.

The LWCOG has developed a computerized Input/Output (I/O) model of the regional economy that may be used to update the population projections. The model also provides the mechanism whereby locally derived information pertaining to economic activities within the Region can be incorporated into the population projection process.

Table 2.1 portrays the population projections used in the land use planning process. As indicated, the population of the Region is expected to more than double by the year 2000 reaching a level of 506,000 over the 1975 estimated level of 237,900.

TABLE 2.1 POPULATION PROJECTIONS FOR LARIMER-WELD REGION(a)

1970 (b)	1975	1980	1985	1990	1995	2000
179,197	237,900	296,600	347,900	401,800	451,600	506,000

- (a) LWCOG 1977.
- (b) U.S. Bureau of Census.
- (c) Local Planning Departments.

2.2 REGIONAL LAND USE DEMANDS

In order to prepare the land use alternatives, it was necessary to identify the land use demands associated with the population projections discussed above. As the needs of the projected population change, lands will be converted from one use to another the amount of additional residential, industrial, commercial, institutional, and recreational open space land required for the region in the year 2000, was defined.

Due to the regional orientation of this study, there has been no attempt to quantify the replacement or recycling of structures or uses likely to become physically or functionally obsolete during the ensuing 25 years. Likewise, there is no evaluation of the adequacy of the existing base of land uses to meet the needs of existing population. Such investigations are more logically under the purview of specific planning efforts at the community and subregional level.

2.3 ALTERNATIVE A: TRENDS

An important aspect of regional land use planning is an understanding of how city and county land use decisions have shaped the current land use patterns, and what future land use patterns could occur if these trends in land use decisions continue. Therefore a land use alternative was developed by the consultant reflecting a projection of trends in land use decisions and patterns (see Figure 2.3).

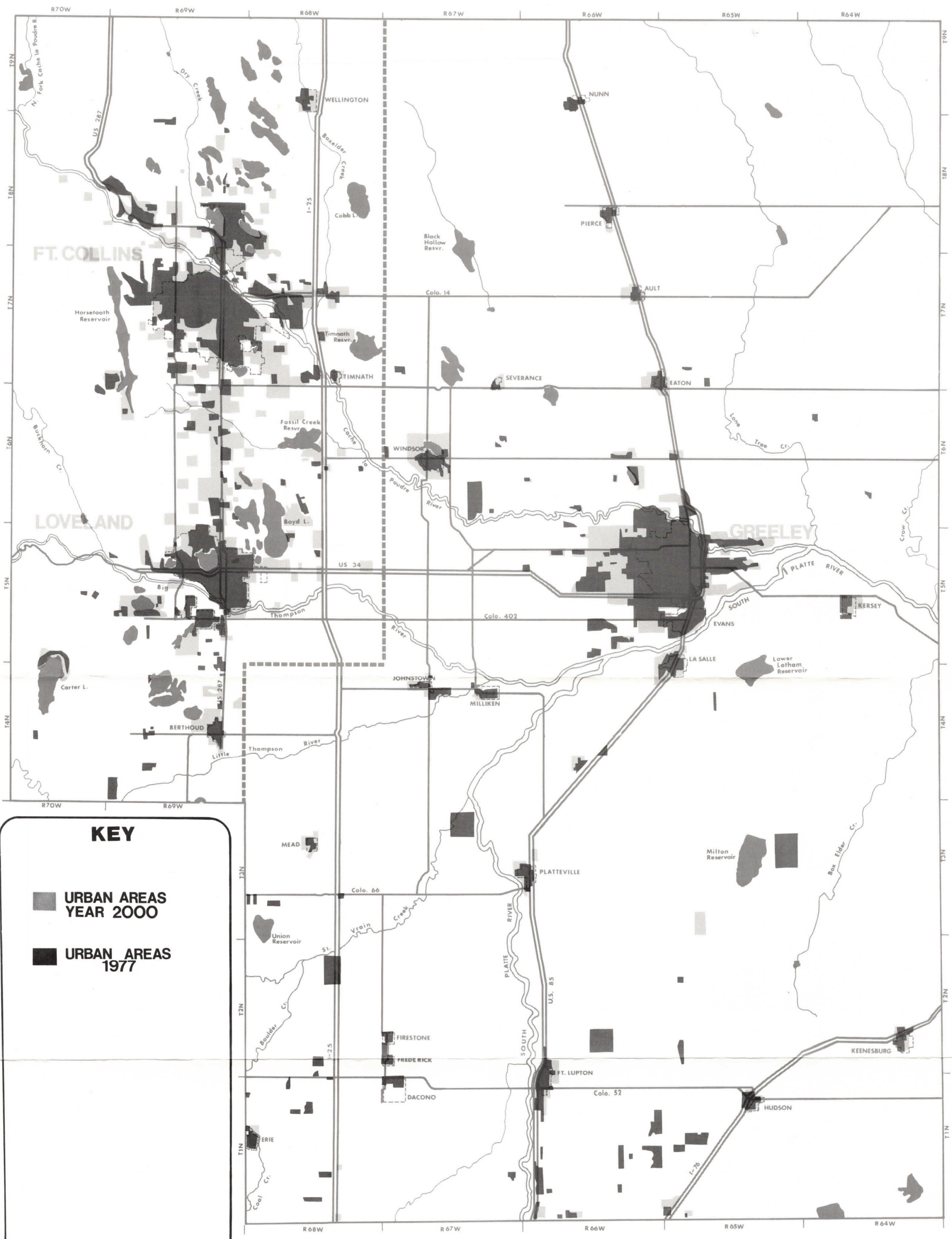
Within Weld County, land use decisions have been generally consistent with the comprehensive plan adopted in 1973 Weld County 1973. Therefore, as past trends in the land use patterns generally reflect Weld County policies, this land use alternative is based on the guidelines in the Weld County Comprehensive Plan. The Plan is based on the policy that prime agricultural land should be retained for agricultural use, and that new development should be encouraged to locate within or immediately adjacent to existing communities, but only to the extent the towns desire the growth.

The situation in Larimer County was complicated by the fact that most land use decisions were made without the assistance of guidelines offered by a comprehensive plan. Therefore, land use decisions have been based on unwritten or unadopted policies in the portions of Larimer County outside of Loveland (which has adopted a comprehensive plan). Consequently, projections of land use patterns in Larimer County were difficult to derive since there were no policies or guidelines to follow and previous land use decisions had been essentially made on a parcel by parcel basis.

2.3.1 Plan Description

If the trends in land use decisions and resultant land use patterns continue, by the year 2000, the land use patterns in Larimer County will differ greatly from those in Weld County. Growth within Weld County would be concentrated in and around existing communities while growth within Larimer County would be scattered throughout the county and much of the presently undeveloped land within Loveland and Fort Collins would remain vacant.

Within Weld County, the Greeley urban area would attract the majority of the countywide growth. This growth would be heavily concentrated within and adjacent to the existing developed areas. As a result of the projected land use pattern (Figure 2.3), the population density of the Greeley urban area would increase by 48 percent, reaching a density of 6.5 people per acre by the year 2000 (Table 2.3.2).



KEY

- URBAN AREAS YEAR 2000
- URBAN AREAS 1977

SCALE



**Alternative A
Historic Trends**

LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS

AREAWIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972 (PL 92-500)

Figure 2.3

March, 1977

The other major growth area within Weld County is the town of Windsor. Kodak, one of the Region's biggest employers, is located to the southeast of the community.

Growth of the Windsor area will depend upon the expansion of Kodak, and would thus occur to the southeast, north and west. By the year 2000 the population density of Windsor will increase by 110 percent reaching a density of 6.3 people per acre. Such an increase will help the city efficiently provide public services to its future residents.

A projection of the historic trends in land use decisions in Larimer County would result in a scattered or dispersed land use pattern. Much of the undeveloped lands between Fort Collins and Loveland would be developed for residential uses. Much of the presently undeveloped land within Loveland and Fort Collins would remain vacant while the cities would have to extend their boundaries to capture enough growth to pay for existing and planned public facilities. As a result of such defensive annexations the population densities of the Loveland/Fort Collins area would decrease by 17 percent (Table 2.3.2). This decrease compounded by relatively low existing population densities for urban areas would result in unnecessarily high costs and inefficient provision of public services.

The difference in the land use patterns that would result, if historic trends in land use decisions continue, reflect to a certain extent the differing problems facing the two counties. The majority of the small communities in Weld County are dependent on the agricultural activities in their immediate vicinity and would actually reduce community viability by allowing development to extend into agricultural lands. Growth of Greeley and Windsor will be tied very closely to expansion of industry within the cities and would not benefit through scattered development which isolates employees residence from place of work.

The new employment centers developed along Harmony Road south of Fort Collins and near the northern boundary of Loveland have increased the land values between the two cities; thus stimulating farmers to sell off more land to developers to ease their tax burdens. Consequently there is an abundance of undeveloped land awaiting conversion to urban uses.

Only through the adoption of a sound land use strategy of guiding growth toward existing communities and infilling of vacant lands within existing communities and providing incentive for continued agricultural activities in the area between Loveland and Fort Collins, could the trends be reversed in Larimer County.

TABLE 2.3.2 POPULATION DENSITY OF MAJOR URBAN AREAS FOR
LAND USE ALTERNATIVE A (a)

Area	1975			2000			
	Existing 1975 Acreage(b)	1975 Pop.(c)	1975 Pop. Density (People/Acre)	2000 Acreage	2000 Pop.	2000 Pop. Density (People/Acre)	Change
<u>Larimer County</u>							
Fort Collins - Loveland Area	19,500	89,326	4.6	59,400	231,000	3.8	-17
Fort Collins		60,600			112,200		
Loveland		24,926			64,400		
Boulder S.D.		1,500			7,400		
S.F.C.S.D.		800			47,000		
<u>Weld County</u>							
Greeley Area	13,134	57,932	4.4	19,000	124,250	6.5	+48
Greeley		53,500			109,700		
Garden City		197			250		
Evans		3,455			9,400		
La Salle		780			4,900		
Windsor	800	2,426	3.0	2,000	12,500	6.3	+110

(a) Toups Corporation, 1977.

(b) LWCOG.

(c) Local Planning Departments.

2.4 ALTERNATIVES B&C - CITIZENS' COMMITTEE

A Citizens' Committee was formed to develop land use alternatives. Each member mapped out their ideas as to location of future development, and listed the factors that were considered most important in designating the selected land use patterns. These land use patterns were evaluated in terms of previously stated concepts and the results of the land use suitability analysis, resulting in a list of development issues. The Citizens' Committee then divided into two groups to conduct a land use gaming technique to project development patterns. Figures 2.4.1 and 2.4.2 portray the land use alternatives developed by the two groups.

2.4.1 Plan Description: Alternative B

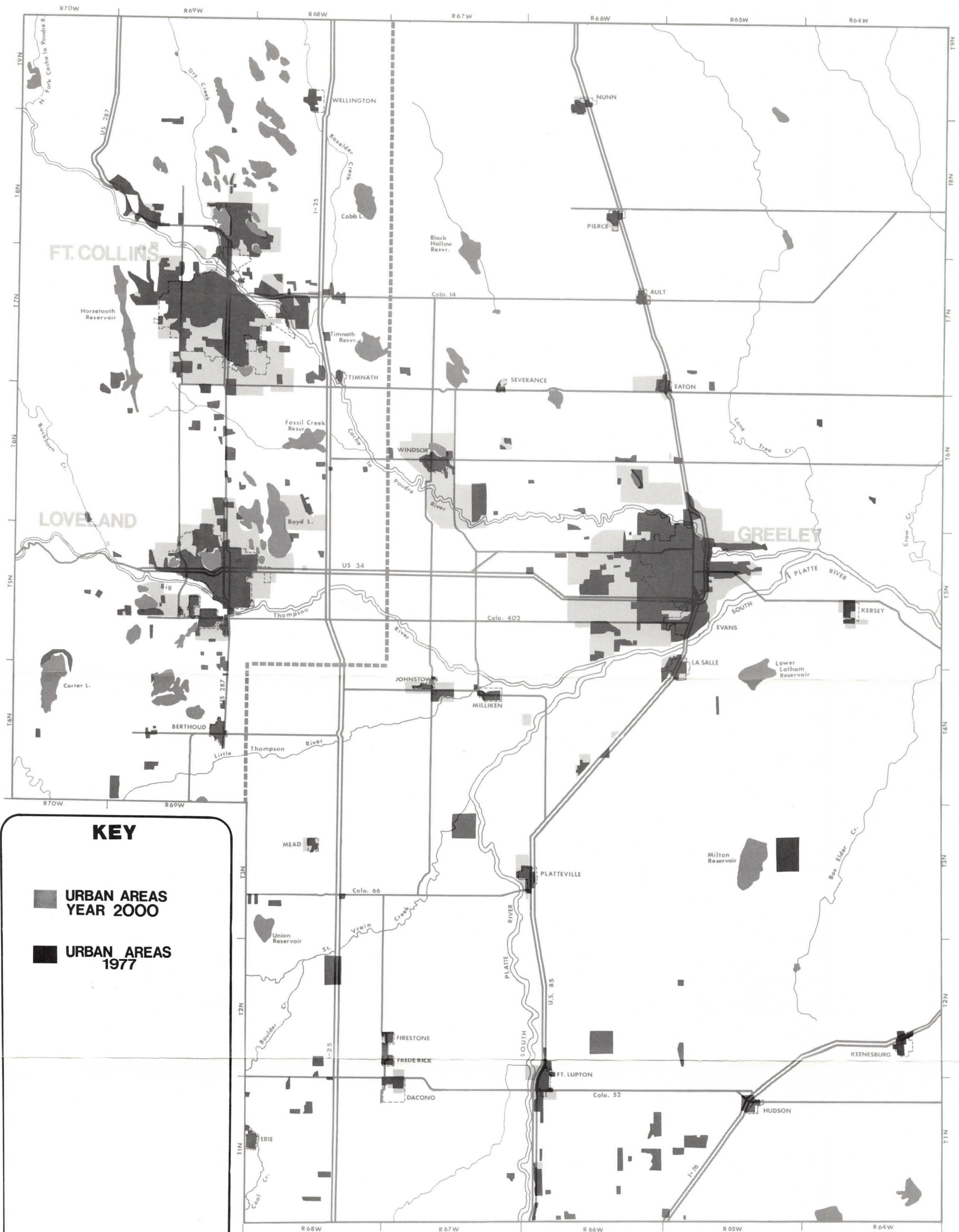
Alternative B only allowed for new development to occur within and immediately adjacent to existing communities. Table 2.4.1 presents a summary of the projected population densities for major urban areas associated with Alternative B.

Growth in the Fort Collins area would occur in a northeasterly direction around the lakes in this area, and in a southern direction generally as far as Harmony Road. Vacant lands within the existing community would be infilled contributing to the increase in population density. Alternative B suggests a 35 percent increase in the population over the level suggested by Alternative A for Fort Collins; however, this increased population is accommodated with only a seven percent increase in land area.

Expansion of the Loveland area is suggested in all directions, with the most extensive growth occurring in the north, south, and west. Residential development in this area is suggested. Although the anticipated population level for Loveland is approximately the same as Alternative A, the land area required to support the population is approximately 45 percent less.

Within Weld County Alternative B suggests that the Greeley urban area would encompass an area 30 percent larger than Alternative A, but only 18 percent more people are accommodated within this area. This additional development would occur primarily in the western and southwestern portions of the City of Greeley. Due to the development occurring within and adjacent to existing communities the population density of the Greeley urban area would increase by 34 percent.

Alternative B also suggests extensive development of the Windsor area resulting in a 100 percent increase in population density. Growth would occur adjacent to the property owned by Kodak, to the northeast around the shore of Windsor Lake, and in the south.



Alternative B
Citizens Subcommittee
1

LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS

AREAWIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972 (PL 92-500)

Figure 2.4.1

March, 1977

TABLE 2.4.1 POPULATION DENSITY OF MAJOR URBAN AREAS FOR
LAND USE ALTERNATIVE B (a)

Area	Existing 1975		1975		1975		2000		2000	
	Acreage (b)	Pop. (c)	Pop. (c)	Density (People/Acre)	Acreage	Pop.	Density (People/Acre)	Pop.	Density (People/Acre)	Percent Change
<u>Larimer County</u>										
Ft. Collins Area	13,500	63,600	4.7	29,000	153,000	5.3	+13			
Fort Collins		60,600			150,000					
Boulder		1,500			1,500					
S.F.C.S.D.		1,500			1,500					
Loveland Area	6,000	24,926	4.2	13,800	65,000	4.7	+12			
<u>Weld County</u>										
Greeley Area	13,134	57,932	4.4	24,700	146,420	5.9	+34			
Greeley		53,500			140,000					
Garden City		197			250					
Evans		3,455			4,500					
La Salle		780			1,670					
Windsor	800	2,426	3.0	2,500	15,000	6.0	+100			

(a) Toups Corporation, 1977.

(b) LWCOG.

(c) Local Planning Departments.

2.4.2 Plan Description: Alternative C

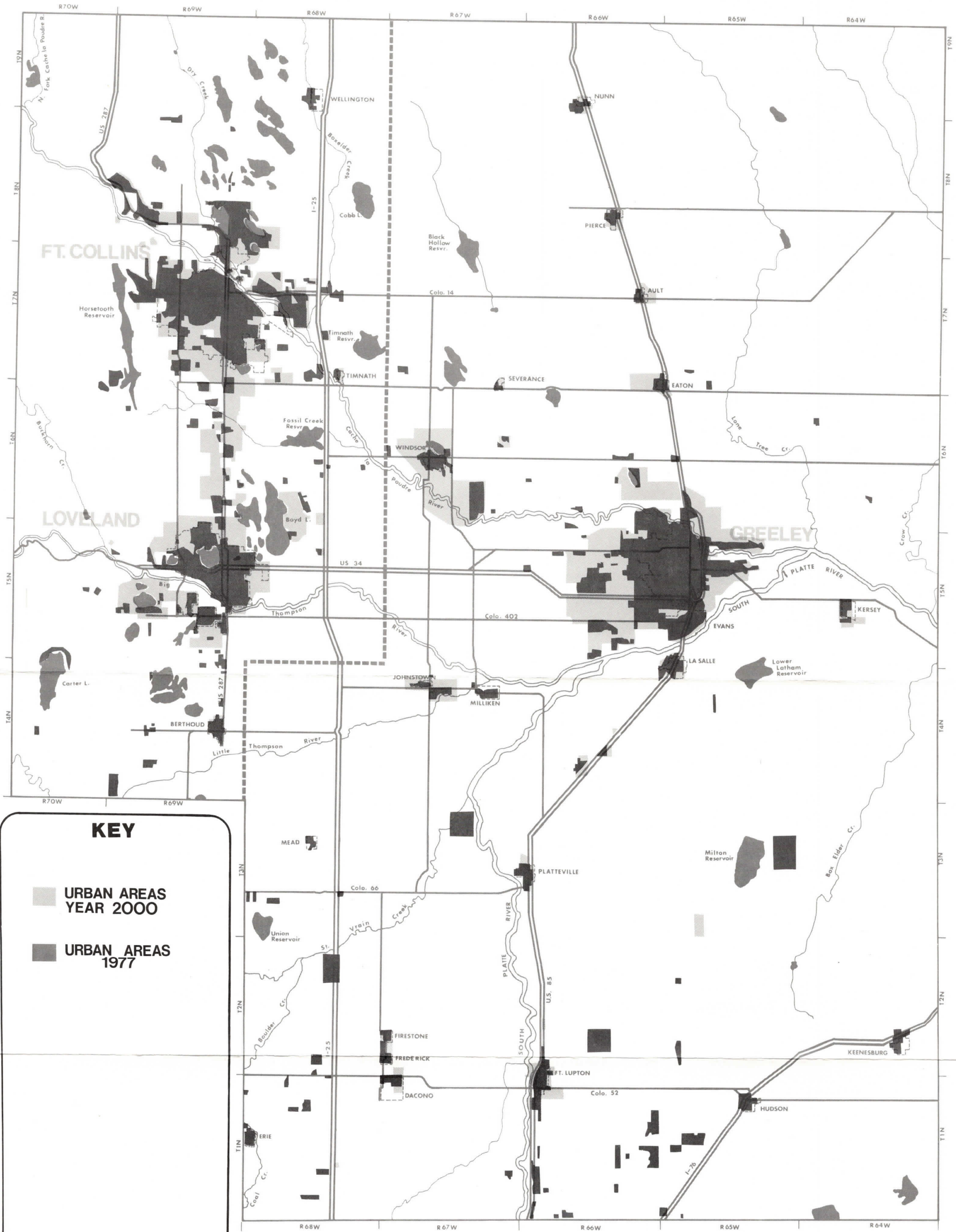
For Weld County, Alternative C followed the same policies for land use allocation as did Alternative B, therefore, resulting in identical land use patterns for Weld County communities. However, a different policy was suggested for land use allocation in Larimer County. In addition to concentrating growth around existing communities, a concentration was suggested along the corridor between Loveland and Fort Collins. The result of following this policy was an allocation of approximately 23,300 people and 5,000 acres of residential and commercial uses to the area between Loveland and Fort Collins and an associated allocation of less people and land uses to the cities of Loveland and Fort Collins, than Alternative B (See Table 2.4.2).

Alternative C placed less emphasis on new high density residential areas than on more land consuming single-family developments. This less concentrated development pattern in Larimer County would actually result in a decrease in the amount of people accommodated in similar acreage figures, thus increasing the demanding for land.

The Loveland-Fort Collins Corridor would develop along U.S. Highway 287. The level of development in this area would result in the establishment of a new urban area equal to the City of Loveland today. Assurance of adequate public services and facilities to this area would rest with Larimer County unless the residents of the area choose to incorporate.

2.5 ALTERNATIVE D: REGIONAL AND LOCAL PLANNERS

To incorporate the existing plans and policies of the local governments into the regional planning process, members of the local and regional planning staffs used a similar land use gaming technique as the citizens' Committee to develop this land use alternative (See Figure 2.5). Unlike Alternatives B & C, the small towns within Weld County were represented in the development of this alternative. Any existing comprehensive plans were incorporated into this alternative, while the planners used their professional judgments and their knowledge of the physical, social, and political environments, in areas without adopted plans or policies. Since this was a land use gaming exercise, the related population projections do not reflect the official population projections for these communities, rather the amount of people that could be accommodated within the designated urban areas.



KEY

- URBAN AREAS YEAR 2000
- URBAN AREAS 1977

SCALE



**Alternative C
Citizens Subcommittee
2**

LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS

AREAWIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972 (PL 92-500)

Figure 2.4.2

March, 1977

TABLE 2.4.2 POPULATION DENSITY OF MAJOR URBAN AREAS FOR LAND USE ALTERNATIVE C (a)

Area	Existing 1975 Acreage(b)	1975 Pop.(c)	1975		2000		2000 Pop. Density (People/Acre) Change
			Density (People/Acre)	Acreage	2000 Pop.	2000 Pop. Density (People/Acre)	
<u>Larimer County</u>							
Ft. Collins - Loveland Area	19,500	89,326	4.6	45,100	219,200	4.9	+7
Fort Collins		60,600			134,700		
Loveland		24,926			60,000		
Boulder S.D.		1,500			1,500		
S.F.C.S.D.		1,500			23,000		
<u>Weld County</u>							
Greeley Area	13,134	57,932	4.4	24,700	146,420	5.9	+34
Greeley		53,500			140,000		
Garden City		197			250		
Evans		3,455			4,500		
La Salle		780			1,670		
Windsor	800	2,426	3.0	2,500	15,000	6.0	+100

(a) Toups Corporation, 1977.

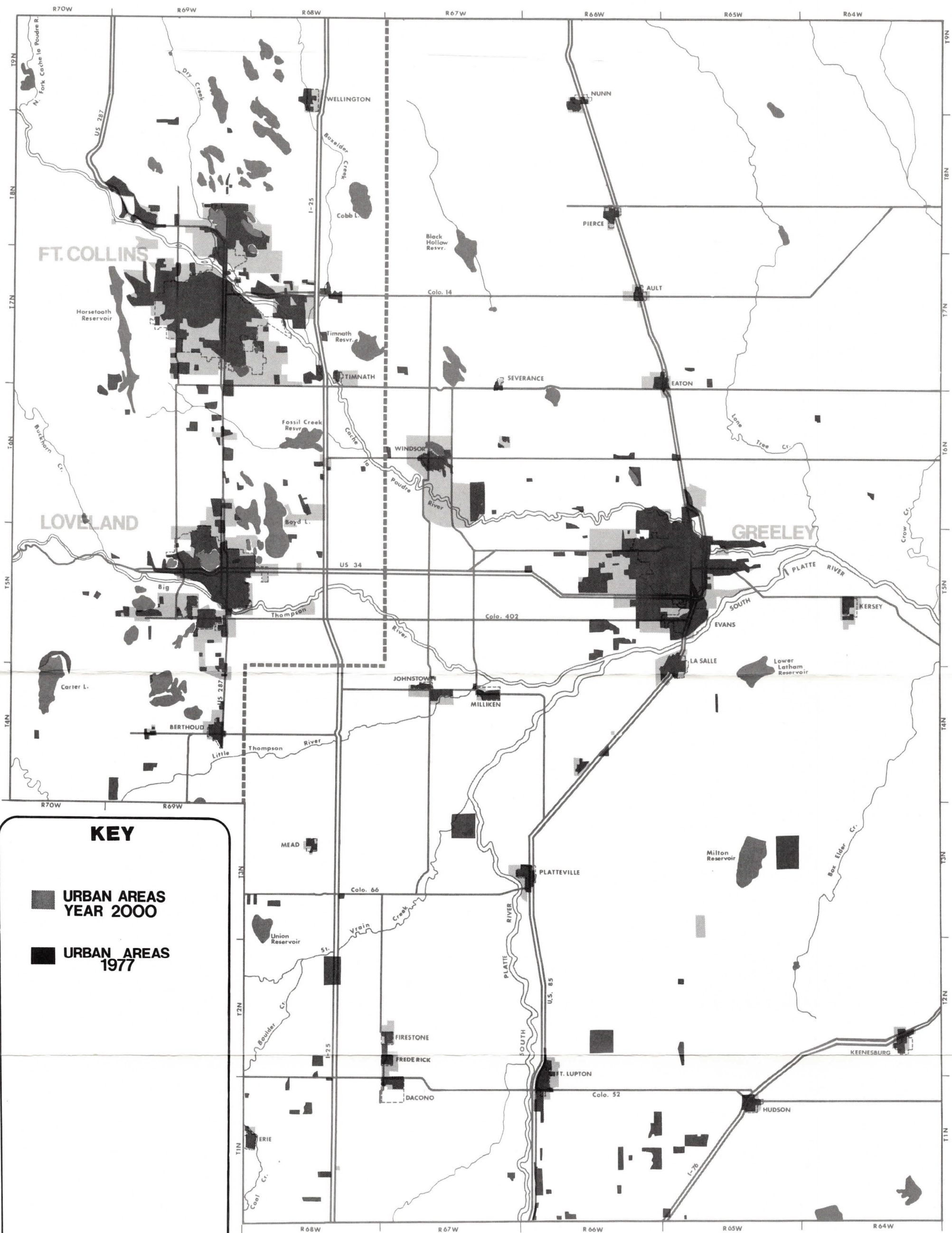
(b) LWCOG.

(c) Local Planning Departments.

2.5.1 Plan Description: Alternative D

The Weld County growth patterns were similar to those in Alternatives A because of their Comprehensive Plan; however, Alternative D anticipates a more than tripling of Loveland's population, at a 60 percent increase in density (see Table 2.5.1). The increases resulted from the designation of six high density residential areas.

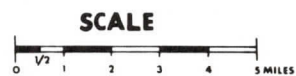
Alternative D represents the highest population density of all the Land Use Alternatives for the Fort Collins area. This is accomplished by suggesting the establishment of several major high density residential areas. Only limited expansion of residential development between Loveland and Fort Collins is suggested.



KEY

■ URBAN AREAS YEAR 2000

■ URBAN AREAS 1977



**Alternative D
Regional & Local
Planners**

LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS

AREAWIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972 (PL 92-500)

Figure 2.5

March, 1977

TABLE 2.5.1 POPULATION DENSITY OF MAJOR URBAN AREAS FOR LAND USE ALTERNATIVE D (a)

Area	Existing 1975 Acreage (b)	1975 Pop. (c)	1975		2000		2000 Pop. Density (People/Acre) Change
			Pop. (c)	Density (People/Acre)	Acreage	Pop.	
<u>Larimer County</u>							
Ft. Collins Area	13,500	63,600	4.7	29,700	176,000	5.9	+26
Fort Collins		60,600			167,000		
Boulder S.D.		1,500			4,500		
S.F.C.S.D.		1,500			4,500		
Loveland Area	6,000	24,926	4.2	12,200	81,300	6.7	+60
<u>Weld County</u>							
Greeley Area	13,134	57,932	4.4	19,000	124,250	6.5	+48
Greeley		53,500			109,700		
Garden City		197			250		
Evans		3,455			9,400		
La Salle		780			4,900		
Windsor	800	2,426	3.0	2,000	12,500	6.3	+110

- (a) Toups Corporation, 1977.
- (b) LWCOG.
- (c) Local Planning Departments.

CHAPTER 3.0 EVALUATION OF LAND USE ALTERNATIVES

Evaluation criteria were developed to provide for evaluation of land use, environmental, and economic aspects of each alternative and to facilitate the development of a land use strategy that would result in efficient utilization and management of the Region's resources. This chapter discusses the land use issues that were used to define the evaluation criteria and then presents an evaluation of each land use alternative based on the defined criteria.

3.1 LAND USE ISSUES

3.1.1 What is the Appropriate General Pattern of Land Utilization in the Region?

Land uses may be distributed in an almost infinite variety of configurations. "Clustered" and "dispersed" patterns represent the traditional polar alternatives. In recent years, the appropriateness of dispersed versus concentrated land use patterns has been questioned due to attendant, economic, environmental, and social costs. A recent publication prepared for the Council on Environmental Quality, The Costs of Sprawl (Real Estate Research Corporation, April 1974) supports arguments against dispersed land use patterns. The report states: "Planning to some extent, but higher densities to a much greater extent, result in lower economic costs, environmental costs, natural resource consumption, and some personal costs for a given number of dwelling units."

Pertinent factors relating to the appropriate land use pattern for the Larimer-Weld area include:

1. Dispersed land uses necessitate a more extensive circulation network than concentrated patterns, incurring costs considerably higher than would be attributable to a concentrated pattern of development. The greater the dispersion, the greater the linear length of roadways required to connect residences with destination points (employment, shopping, entertainment, etc.). In addition, the effectiveness of public transportation systems depends on concentrations of potential users. Lower concentrations and densities result in higher operating cost and generally lead to a greater reliance on the automobile to serve the needs of residents.
2. The costs of providing services to a dispersed population can be considerably higher than the costs of providing equal services to a concentrated population. The need for extended services and maintenance for all

neighborhoods in a dispersed population results in higher capital and operating expenses than the provision of the same services in a concentrated area. Where facilities do not need to be locally distributed, the residents must incur higher transportation costs in getting to and from the facility as their distance from the facility increases. In addition, dispersed development may incur inequities in the financial support of public service systems. Those residing in outlying areas may use libraries, museums, parks, and other services in urban areas without appropriate compensation to the municipality providing the service. Hence, the resident of the municipality assumes the burden of costs for others' benefits.

3. As a general rule, the greater the dispersion of land uses, the greater the capital costs of providing utility service systems (water, sewer, energy, and communication). Collection and distribution systems would have to cover more distance to service a dispersed versus a concentrated population; therefore, the capital costs of providing such services would be higher. In addition, concentrated land use patterns allow for economies of scale in sewage disposal.
4. The economic viability of a recycling and maintenance program for older community areas is directly related to intensification of use in the area. The outward shift of uses often accounts for deterioration of the older areas.
5. A decreasing supply of land available for development is accompanied by a commensurate increase in the value of developable land. In general, the greater the scarcity of developable land, the higher the price such land will bring. Similarly, a region with a growing demand for an abundant supply of developable land, will also be characterized by increasing land values. The difference being the artificially high prices of land in a dispersed area, caused by speculation and leap-frogging development pressures.
6. Air quality is directly correlated to the distance and number of daily automobile trips. Dispersed land use patterns encourage longer trips; hence, heightening air pollution, while concentrated patterns minimize total vehicle miles traveled (VMT), thus lessening pollution. According to The Cost of Sprawl, automobile pollutants can be reduced 20 to 30 percent by concentrating urban land uses.

7. Water consumption is directly related to the density of land uses. Per capita consumption ratios are lower in concentrated urban areas than in dispersed suburban communities. Suburban developments use more water than urban developments to irrigate extensive lawn and garden areas. The per capita consumption rate of apartment house dwellers is roughly half that of suburban dwellers (Milne 1976).
8. Noise levels are impacted by the pattern and density of land uses. In a dispersed pattern, the lengths of highways and local streets would be greater than in a concentrated pattern. Consequently, noise impacts would be spread over a larger area. A concentrated pattern would result in increased noise levels at centralized activity points and reduced levels in outlying areas. It should be noted, however, that actual noise exposure is a function of the specific siting of land uses (i.e., a concentration of residents in a high-noise area would expose a greater number of residents than a dispersed pattern). It is the greater opportunity for avoidance of high noise that can be attributed to a concentrated pattern.
9. A dispersed land use pattern will disrupt native vegetation and wildlife to a greater extent than a concentrated pattern. The greater the dispersion, the greater the amounts of land that are utilized; consequently, the greater the potential for disruption.

Development in a concentrated urban pattern would be focused primarily in and around existing urban and suburban areas where vegetation and wildlife have already been disturbed. Species that are less sensitive have adapted to the presence of man. Those of greater sensitivity have migrated to locations away from existing communities or become locally extent. Continued concentrations of urban uses would have a minimum impact on existing species, while a dispersed pattern would affect outlying areas where sensitive species have migrated, causing substantial disruption.

10. Consumption of natural gas and electricity is a function of housing type, distribution and orientation, and industrial/commercial demand. Apartment units and high-rise buildings consume less energy than single-family units. Consequently, the increasing densities of a concentrated pattern require less energy per unit than a dispersed pattern. Additionally, a dispersed pattern of development requires longer transmission lines than a concentrated

pattern, which results in higher losses in energy during transmission. Gasoline usage is a function of total VMT. In a dispersed land use pattern, VMT is higher than in a concentrated pattern. Therefore, dispersed land use patterns create higher gasoline consumption on a per capita basis than do concentrated patterns.

11. A dispersed land use pattern would tend to perpetuate fragmentation of public services. Fragmentation of services often results in a low level of effectiveness and efficiency, and overlapping jurisdictions hinder a coordinated effort to provide for and guide growth. Agencies often compete for available funding and tax dollars can be spent on capital improvements that contradict improvements made by other agencies.

All of the factors discussed above indicate advantages that could be gained by directing future development in the Region in a concentrated pattern and the disadvantages of allowing development to occur in a dispersed manner. Based on these factors, it is obvious that the Region would benefit through the development and adoption of a land use strategy that resulted in a concentrated land use pattern.

This first land use issue addresses the generalized land use patterns. The following issues focus on specific locational uses which, when resolved will in the context of the overall regional land use distribution strategy, help define the best regional land use pattern.

3.1.2 Should Agricultural Lands be Protected from the Intrusion of Urban and Suburban Development?

Any significant expansion of existing urban and rural communities will consume lands currently in or capable of agricultural production. To avoid consumption of these lands, new development would have to be restricted to: 1) intensification and infilling of existing urban areas; 2) development in the mountains or the extreme fringes of the Region. Though many vacant parcels are found in existing communities, this capacity is insufficient relative to projected demands. Development of fringe areas would result in a highly dispersed regional land use pattern and all the associated disadvantages and costs outlined in Section 3.1.1.

Therefore, it would be inappropriate to require retention of all productive agricultural lands at the exclusion of other options. A more logical approach would be the allocation of urban growth in such a manner that agricultural production

is maximized and cost of urbanization is minimized. Such a solution is possible by allocating development around existing communities in areas of less productive agricultural lands.

3.1.3 What Should be the Relationship of the Pattern of Urban Development to Existing Services?

An important indicator of the quality of life is the adequacy of services and facilities in meeting the needs of the population. Among the services essential to the functioning of a community are sewage treatment, water, solid waste disposal, highways, energy (electrical and natural gas) distribution, schools, health facilities, and police and fire protection. Accessibility to and the quality of services are measures of their adequacy and are significantly affected by the pattern of land use allocation.

Public services have been developed throughout the Region to serve its residents. A detailed evaluation of the 4 alternatives conducted as part of the 208 program concluded that if regional growth does not occur within the potential service districts of existing facilities, existing facilities will be inefficiently utilized and new facilities could be required. Inefficient use of existing facilities combined with possible requirements for new facilities would unnecessarily increase the cost of wastewater treatment for the Region.

3.1.4 What is the Significance of Vacant Lands in Determining the Pattern of Future Land Uses?

Much of the peripheral, and to a lesser extent, the internal development of urban areas of Larimer County are characterized by a scattered pattern of developed and undeveloped lands. Without a strong policy to infill available vacant lands in existing communities, many areas have been prematurely taken out of agricultural production in anticipation of development. Such properties are problems to property owners who must pay higher taxes, to cities that must provide public services, and to the public that looks at scattered vacant lands breaking up the visual character of the area.

In efforts to efficiently manage growth by infilling vacant lands and reducing the premature conversion of productive agricultural land, the cities of Loveland and Fort Collins have been forced to annex large sections of undeveloped land adjacent to their boundaries.

The scattered development pattern that would occur in the absence of such defensive annexations by the cities would require the extension of public services over a large

noncontiguous area which would result in unnecessarily high costs of providing such services and the continued premature conversion of agricultural land to transitional vacant uses.

The adoption of any regional land use strategy will reduce the problem of having land prematurely enter a transitional stage; however, only a policy strongly advocating infilling of existing vacant lands will help existing communities efficiently utilize their resources. Weld County has been pursuing such a policy since the adoption of its comprehensive plan; however, Larimer County has yet to adopt such a policy. This is why the major problem of transitional uses varies widely between potential jurisdictions.

3.1.5 What are the Implications of Environmental Hazards and Constraints on the Future Land Use Pattern, and How Can They be Avoided or Mitigated?

A number of natural environmental systems are present in the Region which would severely impact the pattern of land utilization. The most significant hazards are the floodprone areas of the Cache La Poudre, Big Thompson, and South Platte River and St. Vrain, and Boulder Creek. Development of urban uses (excluding certain extractive industries) in these areas is inappropriate due to the potential loss of life or property.

Other hazards present in the Region include areas of severe slope (in excess of 30 percent), building site soil constraints, erosion hazards, and septic tank limitations. None of these represent an "absolute" threat to life or property. However, the costs of remedial actions can be substantial. Ignorance or disregard of the potential impacts of natural hazards can result in destruction of property and loss of life. Therefore, it is important to develop policies that will eliminate or minimize these problems.

3.1.6 To What Extent Should The Land Use Pattern Respect the Sensitivities of the Region's Natural Environmental Systems?

The Region is characterized by abundance and diversity of wildlife. A number of areas have been defined as "critical" habitats; these are sensitive to or threatened by the introduction of urban uses. Generally, the land use alternatives prepared by the citizens' committee and the local planners have recognized environmentally sensitive areas, designating them for open space or recreational uses. Most vulnerable to urban expansion are the wildlife habitats surrounding lakes in Larimer County. The recreational and visual amenities offered by these make them extremely attractive for

urban development. The land use alternatives reflect varying levels of growth in these vulnerable areas with Alternative A portraying the most growth in such areas.

3.1.7 What Should be the Type and Character of Development in the Foothills and Valleys of the Rocky Mountains?

The foothills of the Rocky Mountains exhibit a unique geologic and biotic environment which could be adversely disrupted by intensive development. The geologic and soil characteristics physically inhibit development. Severe slopes restrict the extent of use and construction often requires blasting. Most of the area is highly unsuitable for septic tanks, as the soils cannot effectively filter wastewater discharge. Therefore, intensive development of the foothills could, without the presence of sanitation treatment systems, adversely impact water quality in downstream areas. The area is a highly used hunting, fishing and camping area and intrusion of urban uses would significantly lessen its recreational attractiveness.

Although none of the land use alternatives designate development in the foothills, development in the foothills and valleys should be carefully structured to prevent degradation of water quality, ensure geologic stability and maintain and enhance recreational resources.

3.1.8 Should Resources Be Allocated to the Recycling of Deteriorating Areas? How Can Further Deterioration be Avoided?

As communities age and grow, areas of initial development often deteriorate. New areas develop on the urban fringe, where land is cheaper, more abundant, and more accessible than in the urban center. When commerce and employment move, residents tend to follow. The effect of this trend is the spiraling exodus from the urban center to the outlying areas of commerce and employment, accelerating deterioration even further.

For successful redevelopment of the downtown areas and prevention of further deterioration of older commercial areas, it is essential to increase the extent and densities of adjacent residential areas. By increasing the number of residents, the potential market for retail uses is heightened. Residents would be able to walk to areas of commerce, rather than use the automobile.

3.1.9 Should Urban Land Uses be Developed along U.S. 287 Linking Fort Collins and Loveland?

The issue of developing the corridor between Loveland and Fort Collins is the principal difference between all the land use alternatives. Alternatives A and C portray extensive development in this area while Alternatives B and D portray very limited development.

From many standpoints including rural community characteristic; availability of public services; proximity to major employment centers; existing land use; and lack of sensitive environmental resources, the area between Loveland and Fort Collins is suitable for development. However, a regional land use planning process must look beyond the simple question of whether land is suitable for development, it must raise and answer the question of what is the most appropriate distribution pattern required to accommodate an anticipated level of growth.

Intensive development of this area would significantly alter the prevailing urban land use pattern. The extent of such alteration would obviously be dependent on the location and intensity of development. In addition to the problems already attributed to a dispersed land use pattern, existing rural character of this area would be drastically changed if such scattered development occurred. The area would take on the appearance of a suburban community rather than retain its rural character.

Any development in this area, whether dispersed as reflected in Alternative A or concentrated along U.S. 287 as reflected in Alternative C, would increase vehicular congestion problems along U.S. 287 and consequently necessitate upgrading of alternate north-south routes to maintain access. Such development would also result in higher VMT and related problems discussed in Section 3.1.1 and would perpetuate the deterioration of the downtown areas of Loveland and Fort Collins.

The land use alternatives tend to reflect absolutes of development or no development where the logical answer to the dilemma may be a limited level of development recognizing the problems.

3.1.10 How and to What Extent can Limited Resources be Conserved; and to What Extent does this Concern Impact Land Use Development and Distribution?

Consumption of limited resources such as energy and water is an unavoidable consequence of population growth and its accompanying urban and suburban development. The rate of

consumption is a function of the nature, intensity, and distribution of land use, the design and occupancy of structures, and lifestyles.

From an energy standpoint, a pattern of land uses where the place of residence, employment, commerce, and recreation are concentrated within close proximity, thus reducing VMT. In reality, this ideal is not wholly attainable, since past regional land use decisions has prevented this option by dispersing major employers.

3.1.11 How can Adopted Land Use Plan Policies and Programs Effectively Guide Future Development in the Region?

Lack of commitment to the policy plan on the part of decision-makers will result in an inconsistent and haphazard land use development. Wholesale granting of variances, conditional use permits, and plan changes in the name of "flexibility" often reflect an attitude of indifference or a fear of planning as an effective mechanism to guide future growth. When "flexibility" is used to encourage innovation or to accommodate more realistic projections, it can be a powerful tool in creating a "dynamic" rather than "static" plan. A plan for the future can be an active and vigorous instrument to remedy existing problems and accommodate future changes.

3.2 ALTERNATIVE EVALUATION

To provide for a full understanding of the differences between the land use alternatives, the land use issues discussed above have been used to develop specific criterion to compare the environmental, economic, and land use aspects of each alternative. In many cases the land use issues encompassed factors which lead to the selection of more than one criteria. Tables 3.2-A Environmental Criteria, 3.2-B Land Use Criteria and 3.2-C Economic Criteria relate the land use alternatives to general evaluation criteria for physical planning.

(From Long Report)

TABLE ENVIRONMENTAL CRITERIA

	A	B	C	D
1. Avoid Development in Environmentally Hazardous Areas	<p>Floodprone areas designated for extractive industries, agricultural production, open space, or recreation. Development in other hazardous areas avoided.</p> <p>Development infringes on following riparian habitat areas:</p> <ol style="list-style-type: none"> 1. Carter Lake 2. Boedecker Lake 3. Boyd Lake Area 4. Terry Lake 5. Horsetooth Reservoir 6. Reservoirs north of Ft. Collins 7. Timnath Reservoir 	<p>Floodprone areas designated for extractive industries, agricultural production, open space, or recreation. Development in other hazardous areas avoided.</p> <p>Development infringes on following riparian habitat areas:</p> <ol style="list-style-type: none"> 1. Boyd Lake Area 2. Terry Lake 3. Reservoirs north of Ft. Collins 	<p>Floodprone areas designated for extractive industries, agricultural production, open space, or recreation. Development in other hazardous areas avoided.</p> <p>Development infringes on following riparian habitat areas:</p> <ol style="list-style-type: none"> 1. Boyd Lake Area 2. Terry Lake 3. Reservoirs north of Ft. Collins 	<p>Floodprone areas designated for extractive industries, agricultural production, open space, or recreation. Development in other hazardous areas avoided.</p> <p>Development infringes on following riparian habitat areas:</p> <ol style="list-style-type: none"> 1. Boyd Lake Area (to a lesser extent than A, B or C) 2. Terry Lake (to a greater extent than A, B or C) 3. Reservoirs north of Ft. Collins (to a greater extent than A, B or C)
3. Impact on Regional Air Quality	<p>Reflects the most dispersed land use pattern resulting in highest VMT and largest associated increase in regional air pollution.</p>	<p>Concentrated land use pattern results in lower VMT and associated lower regional air pollution problems than A or C.</p>	<p>Dispersed land use pattern results in higher VMT and associated greater regional air pollution problems than B or D but less than A.</p>	<p>Reflects the most concentrated land use pattern resulting in lowest VMT and associated increase in regional air pollution problems.</p>
4. Impact on Local Air Quality	<p>Dispersed land use pattern would generate localized pollution problems in newly developed urban areas of Larimer County. Concentrated land use pattern in Greeley could intensify local pollution problems. Concentrated land use along U.S. 287 would create local problems.</p>	<p>Concentrated land use pattern in Ft. Collins and Loveland could intensify local problems without mass transit. Less concentrated land use pattern in Greeley would increase the area where local problems exist.</p>	<p>Concentrated land use along U.S. 287 would generate local problems in this area.</p>	<p>Highly concentrated land use pattern in Greeley, Loveland, and Ft. Collins could intensify local pollution problems without mass transit. Reduced local pollution problems in rural areas.</p>

A	B	C	D
<p>5. Impact on Noise Levels</p> <p>Ambient noise levels increased throughout existing rural areas of Larimer Co. and U.S. 287 where development would occur. Increased ambient noise levels in cities of Loveland and Ft. Collins due to growth. Compounded increase in ambient noise levels in Greeley due to intensification of land use and growth.</p>	<p>Ambient noise levels in rural areas generally not impacted. Levels in major urban areas compounded due to growth and intensification of urban development.</p>	<p>Ambient noise levels along 287 increase due to designated growth noise levels in major urban areas also increase due to growth.</p>	<p>Promotes conservation of water in Larimer and Weld Counties by increasing residential densities in Greeley, Loveland, and Ft. Collins.</p>
<p>6. Promote Conservation of Domestic Water Resources (including lawn watering).</p> <p>1. Promotes unnecessary consumption of water by low density scattered residential development throughout Larimer County.</p> <p>2. Promotes conservation of water by increasing density of residential uses in Greeley.</p>	<p>Perpetuation of existing low density residential uses in major urban areas promotes unnecessary consumption of water resources.</p>	<p>Promotes unnecessary consumption of water in Greeley, Loveland, Ft. Collins and designated urban area along U.S. 287 by allowing low density residential uses.</p>	<p>Concentrated land use pattern promotes gasoline conservation; however, to a lesser extent in Weld County than A and D. Conservation of domestic heating energy greater than A or C but less than D.</p>
<p>7. Promote Conservation of Energy Resources</p> <p>Increased VMT related to dispersed land use patterns in Larimer County will promote unnecessary consumption of gasoline. Concentration of land use in Weld County resulting in reduced VMT promotes conservation of gasoline.</p> <p>Low residential density would result in minimal domestic heating savings in all areas except Greeley</p>	<p>Development along U.S. 287 increased VMT over B and promotes unnecessary gasoline consumption in Larimer County (to a lesser extent than A) Same impact as B in Weld County. Medium-low residential density would result in minimal domestic heat savings.</p>	<p>Concentrated land use pattern throughout the Region reduces VMT and promotes conservation of gasoline. Hi density multiple unit dwellings in urban areas would potentially have least total domestic heating requirement.</p>	<p>Least change in visual character of Weld County. Minor changes in visual character in urban fringe areas of Larimer County. Biggest change in area around reservoirs north of Ft. Collins</p>
<p>8. Effect the Scenic Quality of Region</p> <p>Will alter the visual character of the area between Loveland and Ft. Collins changing it from rural agricultural area to intermittent urban or suburban areas. Least change of visual character in Weld County.</p>	<p>Generally maintain rural area visual characteristics. Expansion of urban areas but only adjacent to existing urbanized areas.</p>	<p>Convert the Corridor along U.S. 287 to an urban area. Minor changes in fringes of other urban areas.</p>	<p>Least change in visual character of Weld County. Minor changes in visual character in urban fringe areas of Larimer County. Biggest change in area around reservoirs north of Ft. Collins</p>

3.2-B

TABLE LAND USE CRITERIA

	A	B	C	D
1. Concentrated or Dispersed Land Use Pattern	Highly dispersed land use pattern in Larimer County and highly concentrated land use pattern in Weld County.	Concentrated pattern in Larimer and Weld Counties; however, Greeley is not as concentrated as in A or D.	Less concentrated land use pattern in Larimer County than B with development along U.S. 287. Same pattern for Weld County as B.	Most concentrated land use pattern throughout Region.
2. Direct Consumption of Productive Agricultural Land	17,200 acres 2.2% of Regional Total	21,400 acres 2.6% of Regional Total	22,100 acres 2.7% of Regional Total	13,000 acres 1.6% of Regional Total
3. Premature Conversion of Agricultural Land	Promote the continued premature and essential conversion of agricultural land in Larimer County to transitional vacant uses. Promote the retention of productive agricultural lands in Weld County for Agricultural uses until necessary for urban use.	Promote retention of agricultural lands for agricultural uses by providing guidelines as to which lands should be ultimately developed.	Same as B	Same as B
4. Infilling of Vacant Lands	Much of the vacant land within the incorporated areas of Larimer County would remain vacant. Extensive infilling in the incorporated areas of Weld County would result.	Infilling of vacant lands would occur in all incorporated areas of the Region.	Infilling would occur but to a lesser extent than B to allow for development along U.S. 287.	Reflects the most intensive infilling in all incorporated areas of the Region.
5. Existing Planning and Zoning Designations	Closely follows existing planning policies and zoning designations in Weld County. Follows past policy of allowing dispersed development in Larimer County where roughly only 20% of land zoned for commercial uses along U.S. 287 have been developed.	Generally consistent with Weld County policies. Reflects pattern inconsistent with trends in land use decisions in Larimer County.	Same as B.	Same as B.

32-B

TABLE 5-22 LAND USE CRITERIA (Continued)

	A	B	C	D
6. Revitalization of Deteriorating Urban Areas	<p>Would support urban renewal programs in Weld County particularly for the downtown Greeley area.</p> <p>Would perpetuate the deterioration of downtown Loveland and Ft. Collins and lead to potential failure of urban renewal programs in those cities.</p>	<p>Would support urban renewal programs throughout the Region, but to a lesser extent than A or D.</p>	<p>Would support Greeley's urban renewal program in a manner similar to B.</p> <p>Would perpetuate the deterioration of downtown Loveland and Ft. Collins by possibly providing a mid-city shopping area.</p>	<p>Would strongly support urban renewal and revitalization programs throughout the Region.</p>
7. Development in Proximity to Employment and Commercial Centers	<p>Development in Weld County concentrated around existing communities would be in close proximity to existing centers. Scattered development in Larimer County would not be in close proximity to existing centers; however, small new centers could develop in new residential areas.</p>	<p>Development throughout the Region would be in close proximity to existing centers. Thereby stimulating new centers to locate in the same areas.</p>	<p>Development along U.S. 287 corridor would create the possibility of this area becoming a new center. Generally development, except U.S. 287 corridor, close to existing centers.</p>	<p>Same as B.</p>
8. Increased Urban Densities Existing Density Greeley 4.2 p/ac Ft. Collins 4.8 p/ac Loveland 4.2 p/ac Windsor 3.1 p/ac	<p>Year 2000 Density People/acre 6.53 4.31 3.22 6.25</p>	<p>Year 2000 Density People/acre 5.91 5.46 4.71 6.00</p>	<p>Year 2000 Density People/acre 5.91 5.43 3.92 6.00</p>	<p>Year 2000 Density People/acre 6.53 5.82 6.6 6.25</p>
9. Sense of Community	<p>Supports community identity of rural and urban areas in Weld County.</p> <p>Alters identity of rural area between Loveland and Ft. Collins and creates an area of suburban sprawl from Loveland to Ft. Collins.</p>	<p>Supports Community identity of all rural and urban areas in Region.</p>	<p>Creates an urbanized strip from Loveland to Ft. Collins altering rural character of this area and linking two cities. Supports community identity in rural and urban areas of Weld County.</p>	<p>Same as B.</p>

A B C D

<p>1. Wastewater Treatment Facilities</p>	<p>Result in under-utilization of Ft. Collins system by approximately 50% a minor underutilization of Loveland's system, and total use of Greeley's system by 2000. Would require the expansion of south Ft. Collins system to twice its present capacity and expansion of Windsor's system.</p> <p>Would require extensive new collection lines to service scattered development in Larimer County.</p>	<p>Result in minor underutilization of major urban systems. Would not utilize capacity of south Ft. Collins system. Would require expansion of Windsor's system.</p>	<p>Result in minor underutilization of all major urban systems including south Ft. Collins. Would require extension of collection lines to service development along U.S. 287. Would require expansion of Windsor's system.</p>	<p>Result in maximum utilization of urban systems except south Ft. Collins which would be underutilized. Would require expansion of Windsor's system.</p>
<p>2. Transportation and Circulation Network</p>	<p>Require new or improved E-W and N-S corridors to serve scattered development between Loveland and Ft. Collins.</p> <p>Could result in traffic congestion in all urban areas. Require more traffic lights and increase travel times between Ft. Collins and Loveland than B,C,D.</p> <p>Hinder the efficiency of a regional or intra-urban mass transit system.</p>	<p>Require maximum utilization of existing urban arterials, but no expansion of new cross-county corridors. Encourage intra-urban mass transit.</p>	<p>Require improvement of U.S. 287 to accommodate new development. Would support operation of intra-urban and possibly an inter-urban, between Loveland and Ft. Collins, mass transit system.</p> <p>Require more traffic lights and increased travel time than B, but less than A.</p>	<p>Same as B. Encourage intra-urban mass transit.</p>
<p>3. Police and Fire Protection</p>	<p>Require the costly provision of police and fire protection services to scattered development in Larimer County. Require more lengthy response times for emergency service if new facilities are not located in new population areas. Loveland and Ft. Collins would also have to increase services to provide for increased non-resident shoppers and employees.</p>	<p>Require expansion of existing facilities, but only within urban areas. No extensive new facilities would be required.</p>	<p>Require the development of facilities to provide adequate protection to development along U.S. 287 and expansion of existing facilities.</p>	<p>Same as B.</p>

3.2-c

TABLE ~~5.2~~ ECONOMIC CRITERIA (Continued)

	A	B	C	D
4. Parking Areas	More required because of scattered reliance on individual automobile travel.	Less emphasis on intra-urban individual auto travel, less parking required.	More required because of scattered reliance on individual automobile travel but not as pronounced as A.	Same as B.
5. Civic Services and Facilities	Scattered development in Larimer County would result in corporate area non-residents using recreational and cultural facilities supplied by the cities of Loveland and Ft. Collins without paying taxes.	Encourages more equitable use and payment for recreational and cultural facilities supplied by cities of Ft. Collins and Loveland.	Same effect as A except not as severe.	Same as B

CHAPTER 4.0 THE RECOMMENDED PLAN

It is the intent of this Chapter to summarize the recommended strategy for the orderly use of land in the Region to the year 2000. Recommendations reflect the review of regional characteristics; evaluation of land use determinants conducted by city, county, and regional planners and the consultant as expressed in the land use suitability analyses; land use alternatives reflecting historic trends in regional land use decisions, policies of the Citizen's Committee, and policies adopted by local governing authorities; and the evaluation of the land use alternatives in terms of land use issues and associated evaluation criteria raised by the alternatives.

It should be cautioned that in developing community land use concepts, the initial focus must be on the Region. No community exists in isolation from all others; actions exercised on one often impact all others. Independent and unconstrained activities in each community or geographic area, without reference to the regional context, can incur significant long-term impacts.

4.1 PLAN DERIVATION

To ensure orderly utilization and efficient management of the regional resources, it is essential to determine the lure of anticipated growth for the entire Region and for each of the communities within the Region.

4.1.1 Population Projections

A series of regional population projections which adequately serve as an indicator of regional growth and therefore as a basis for land use planning, reflect the anticipated population increase to the year 2000. Based on the regional data, a series of community population projections were developed to determine the anticipated growth for each of the communities within the Region. The population projections developed for the communities within the Region are sensitive to local growth trends and to the regional growth potential.

Table 4.1.1 includes the community population projections for Larimer and Weld counties. The majority of the growth will occur within the major urban areas, while smaller communities will also experience some growth. A portion of existing rural area population will drop because of annexation by urban areas.

4.1.1

TABLE 6.11.1 REGIONAL AND COMMUNITY POPULATION PROJECTIONS [a]
(November 1977)

	1970[b]	1975[c]	1980	1985	1990	1995	2000
<u>LARIMER COUNTY</u>							
Incorporated Areas [d]							
Berthoud	1,446	2,072	3,800	4,500	5,300	6,000	7,000
Estes Park	1,616	2,052	2,100	2,500	3,000	3,300	3,900
Fort Collins	43,337	60,600	80,200	96,200	112,500	127,000	149,400
Loveland	16,220	24,926	31,300	37,800	43,400	52,000	60,900
Timnath	177	153	450	550	650	700	800
Wellington	691	1,213	2,000	2,400	2,700	3,100	3,700
Unincorporated Areas							
Boxelder S.D.		1,500[a]	3,330	3,980	4,640	5,250	6,000
South Fort Collins S.D.		1,500[a]	4,450	5,510	7,590	8,590	10,000
Spring Canyon S.D.		800[a]	1,000	1,250	1,500	1,750	2,000
Red Feather/ Crystal Lakes		250[a]	600	1,000	1,300	1,700	2,000
Upper Big Thompson S.D.		2,000[a]	2,200	2,500	2,900	3,500	4,000
Other	26,413	30,233	28,395	30,115	30,450	30,510	31,300
Total Larimer County	89,900	127,299	159,825	188,305	215,930	243,400	281,000

(From 6.9 Dept)

4.1.1

TABLE 6.1.1 (Continued)

	1970 [b]	1975 [c]	1980	1985	1990	1995	2000
<u>WELD COUNTY</u>							
Incorporated Areas [d]							
Ault	841	932	1,800	2,100	2,400	2,700	3,000
Dacono	360	1,243	2,500	3,200	3,700	4,200	4,600
Eaton	1,389	1,629	2,500	2,900	3,300	3,700	4,000
Erie	1,083	1,651 [e]	1,600	1,600 [e]	1,650 [e]	1,700 [e]	1,800 [e]
Evans	2,570	3,455	5,000	6,500	7,400	8,300	9,100
Firestone	570	811	1,000	1,100	1,300	1,400	1,600
Fort Lupton	2,489	3,041	5,000	6,500	7,400	8,300	9,000
Frederick	696	705	1,800	2,300	2,600	2,900	3,200
Garden City	142	197	250	250	250	250	250
Gilcrest	382	451	500	500	800	800	800
Greeley	38,902	53,500	66,000	78,200	92,800	105,800	115,850
Grover	121	175	175	175	175	175	175
Hudson	518	683	1,000	1,200	1,300	1,400	1,500
Johnstown	1,191	1,580	1,600	1,600	1,600	2,000	2,200
Keenesburg	427	505	550	800	800	1,300	1,300
Keota	6	2	10	10	10	20	20
Kersey	474	665	1,700	2,100	2,500	2,800	3,000
La Salle	1,227	1,780	2,575	3,200	3,700	4,200	4,500
Lochbuie	650	1,038	1,050	1,100	1,250	1,400	1,500
Mead	195	216	215	215	500	500	500
Milliken	702	1,117	1,500	2,475	3,100	3,600	4,000
New Raymer	68	86	70	70	85	85	85
Nunn	269	318	325	325	350	350	350
Pierce	452	714	1,200	1,700	2,000	2,500	3,000

4.1.1
 TABLE 4.1.1 (Continued)

	1970[b]	1975[c]	1980	1985	1990	1995	2000
Platteville	683	1,024	2,100	2,800	3,200	3,400	3,600
Rosedale	66	67	75	75	100	100	100
Severance	59	78	80	600	700	700	800
Windsor	1,564	2,426	4,000	6,000	7,500	8,600	10,000
Unincorporated Areas	31,201	31,812	30,500	32,000	33,500	35,020	35,170
Total Weld County	89,297	111,901	136,675	161,595	185,970	208,200	225,000
TOTAL	179,197	239,200	296,500	349,900	401,900	451,600	506,000

[a] Toups Corporation, November 1977.
 [b] U.S. Bureau of Census.
 [c] Local Planning Departments.
 [d] 1970 and 1975 figures are for actual incorporated areas; 1980-2000 figures are for projected incorporated areas.
 [e] Erie population reflects only Weld County portion.

4.2 RECOMMENDED LAND USE POLICIES

The following policies recommend the strategy that would result in the most efficient use of the Region's resources and be most responsive to existing land use policies.

4.2.1 General Pattern of Land Use in the Region

1. Population and land use growth shall be concentrated in and around existing communities.
2. Each community shall designate a breadth of land use types and densities within their jurisdiction. The larger areas shall designate lands in a manner to promote self-contained communities (i.e., residential, employment, commerce, recreation, cultural, public services). Smaller communities shall designate a range of uses appropriate to the market support (e.g., convenience commercial, local schools).
3. Intensification of existing land use densities and infilling of vacant parcels shall be encouraged.
4. Open space buffers shall be established between communities. These shall include recreational greenbelts and/or areas of agricultural production.
5. Proposed residential projects shall be encouraged to develop as "planned unit developments." In such cases, residential densities would be considered as an average for the total proposed development site, to promote clustering and the provision of open space.
6. Commercial development shall be encouraged to locate within existing communities, unless it can be demonstrated by the developer that the proposed commercial use cannot be reasonably located in these areas.
7. Commercial development designed to serve the agricultural base of the Region shall be located wherever practical within an existing community; however, whenever

distance from a community makes this impractical or financially enviable, facilities within easy access to each agricultural area will be encouraged.

8. Automobile oriented commercial uses shall be encouraged to locate either within existing communities or at intersections of major highways and freeways. In the latter case, the developer must justify the need for the proposed commercial use, and define its associated environmental, economic, and social impacts.
9. Public service facilities (schools, libraries, health facilities, police and fire centers, governmental administrative facilities, cultural centers, etc.) shall be located within existing communities.
10. Neighborhood and community parks shall be provided in all urban areas.
11. Industrial uses shall be encouraged within existing communities; excluding low-employee related agricultural industries and those dependent on the unique resources of a particular site (e.g., mineral extraction, lumbering etc.).
12. Costs of providing services within the communities, excluding those directly incurred by a developer, shall be borne by the community residents.
13. Proposals for new development outside existing communities shall be carefully evaluated according to their:
 - a. Impacts on the regional distribution of land uses,
 - b. Impacts on the economic viability of uses in existing urban areas,
 - c. Costs to the residents of the Region for the provision of urban services,
 - d. Impacts on agricultural production,
 - e. Relationship to critical wildlife and vegetative habitats,
 - f. Relationship to areas of environmental hazard,
 - g. Impacts on regional and local recreational systems,
 - h. Impacts on school systems,

- i. Requirements for modification of existing circulation and transportation systems,
- j. Impacts on air quality,
- k. Impacts on regional VMT and resultant air pollution and noise,
- l. Relationship to regional and local water and wastewater management systems,
- m. Consistency with resident attitudes and perceptions.

If proposed development plans are accepted by the jurisdictional agency, the developer shall bear all costs associated with provision of services and utilities.

Supplementing the general land use policies recommended above, are the following other policies:

4.2.2 Maintenance of Lands in Agricultural Production

- 1. Future urban development shall be encouraged in areas of or immediately contiguous to existing or planned urban services; thus minimizing travel time. Adequate public services shall be provided in defined areas to meet the needs of the resident population. They shall be expanded at a rate commensurate with growth. Phasing of their implementation shall be timed to prevent gaps in service. As feasible, non-utility services shall be established in central urban areas.
- 2. Existing districts with sufficient capacity shall be upgraded to meet forecast demands defined herein, or subsequent refinements adopted by the local jurisdictional agencies.
- 3. New special districts shall not be created without a comprehensive evaluation of the economic, environmental, and social impacts of such action prepared by recognized experts. New districts shall be responsive to potential demands and not be provided solely to stimulate growth.
- 4. Proliferation of service districts shall be discouraged while consolidation of existing service districts shall be encouraged when it tends to improve the efficiency and economy of the service.

5. New energy generation systems shall require a comprehensive analysis of environmental, economic, and social impacts.
6. Major arterials shall be developed on a regional basis (pursuant to Transportation Title 23, U.S. Code Section 134).
7. A unified and integrated circulation system shall be provided throughout the region. The existing facilities shall be utilized to the maximum extent possible.
8. The circulation system shall relate to existing land uses and topographic features.
9. Public transportation systems shall be evaluated according to their appropriateness and feasibility, with emphasis placed on service to the low-income, elderly, and disabled.

4.2.3 Infilling of Undeveloped Lands in Urban and Rural Communities

1. Development of vacant lands within communities shall be encouraged with tax bonuses or increased densities, while leapfrogging development will be discouraged with higher utility fees.

4.2.4 Environmental Hazards

1. In areas deemed significantly hazardous to the health and welfare of the public, future development shall be limited and controlled unless appropriate corrective measures can be implemented.
2. Floodprone areas shall be designated as "Flood Plain Management Areas", and spatial development standards applied therein.
3. Areas of excessive slope (exceeding 30 percent) shall be designated as "Hillside Management Areas," with appropriate performance standards developed by cities and counties to minimize potential hazards.

4.2.5 Environmental Sensitivities

1. Future growth shall be directed away from areas exhibiting high environmental sensitivity to land use development unless appropriate mitigating measures can be implemented.

2. Disruption and degradation of the environment shall be minimized as land use development occurs. Land uses shall be integrated so that they are compatible with natural environmental systems.
3. Expansion of urban uses into areas of rare and endangered species shall be prohibited. The breeding grounds of the White Pelican and the wintering range of Bald Eagles along the South Platte River, east of Greeley, shall be designated as permanent open-space preserves.
4. Significant plant and wildlife habitats in the Region shall be designated as "Habitat Management Areas." These areas shall be limited to grazing, educational observation, fishing, hunting, hiking, picnicking, and other light recreational activities. Habitat disturbance shall be prohibited, excluding specified hunting and fishing activities.
5. Environmental degradation shall be minimized by enforcing controls on sources of pollutants and noise. Land use development shall be concentrated within and adjacent to existing communities to minimize regional and local air quality and noise levels and disturbance of native vegetative and wildlife communities.
6. Sanitary waste collection and treatment systems shall be required in all service areas, and areas characterized by severe and moderate septic tank limitations.

4.2.6 Development in the Foothills and Valleys of the Front Range of the Rocky Mountains

1. All foothill areas characterized by slopes in excess of 30 percent shall be classified as "Hillside Management Areas" and appropriate conditions of development applied.

4.2.7 Recycling and Regeneration of Deteriorating Land Uses

1. Recycling and regeneration of deteriorating urban areas shall be encouraged. Appropriate rehabilitation, demolition, and rebuilding programs shall be pursued. Continued maintenance and rehabilitation shall be encouraged to prevent community deterioration.

2. To prevent further deterioration and provide an incentive for public sector redevelopment, residential densities shall be intensified in areas immediately adjacent to the older "downtown" areas of Fort Collins, Greeley, and Loveland.
3. Educational programs shall be established promoting continuing maintenance of housing.

4.2.8 Development in the U.S. Highway 287 Corridor between Fort Collins and Loveland

1. Development of Fort Collins shall be encouraged to Harmony Road as its southern limit; and Loveland to approximately two (2) miles north of Lake Loveland, as its northern limit, with the land between the two encouraged to remain in agricultural production.

add } Development of "Residential Planned Unit Developments" shall be encouraged in the area immediately south of Harmony Road, flanking U.S. Highway 287.

4.2.9 Conservation of Natural Resources

1. Development of urban land uses (residential, commercial, industrial, and public facilities) shall be concentrated in and adjacent to existing development to minimize consumption of limited water and energy resources.
2. Land use densities shall be intensified to promote the viability of mass movement systems in the urban communities.
3. Development of residences apart from existing communities shall be discouraged, to minimize the total vehicle miles traveled and energy consumption in the Region.
4. Use of alternative energy resources (e.g., solar) shall be encouraged in the development of residential tracts.
5. In developing strategies for the treatment of wastewater discharge, the feasibility of reuse for agriculture, injection into the ground water supply, industry, and/or use as cooling water for electrical generation shall be examined. When treated or percolated wastewater is deemed safe for these uses, such actions shall be encouraged.
6. Development shall be discouraged in areas of potential mineral extractions.

4.2.10 Effective Implementation of the Land Use Plan

1. Plan flexibility shall be encouraged as a means of accommodating changing demands and lifestyles and inducing innovation for the benefit of the Region.
2. Population growth and land use development should be monitored, and appropriate plan and zoning designations should be updated by the counties and cities in the Region.

4.3 PLAN DESCRIPTION

The Recommended Plan represents the recommended strategy for the orderly use and management of the Region's environmental economic and social resources. Detailed plans reflecting the land use classifications identified below and the allocation of the defined residential, commercial, industrial, institutional and recreational land use demands are available for review at the LWCOG.

4.3.1 Land Use Classifications

The land use classifications reflected on the detailed plans were developed relative to the type, intensity, and special conditions of the use of the land in the Region. These are applicable to the management of all land within the Region. General classifications designated on the Recommended Land Use Plan include:

1. Urban
2. Residential - low density, high density. Subdivisions > 50% Complete Subdivisions < 50% Complete
3. Commercial - community, Regional office, recreational, airports, highway
4. Industrial - light, medium, heavy
5. Institutional educational, governmental, health, police and fire
6. Recreational - neighborhood parks, community parks, urban parks, golf courses
7. Transportation/Circulation Systems
8. Resource Management Areas - hillside, flood, dam, habitat
9. Agricultural
10. Woodlands
11. Rangelands
12. Water Bodies
13. Other

4.3.2 Recommended Land Use Plan

The recommended land use plan for the year 2000 (Figures 4.2.2-A and 4.2.2-B) recognizes and emphasizes continuance

of the prevailing patterns of land use, as balanced by the sensitive management of the area's unique environmental and social resources. Growth is concentrated within and adjacent to existing urban and rural communities; limiting outward expansion to defined service areas and discouraging development of new activity centers.

Table 4.3.2 includes the anticipated population densities associated with the recommended land use pattern. Due to the concentration of growth in and around these urban areas, the population density of each area would increase enabling the Region to realize the benefits of a concentrated land use pattern. The most extensive increase in density would occur in the Windsor area where the area would generally experience a change from a suburban density of 3.0 people per acre to a density of 5.0 people per acre, more reflective of an urban area. The Greeley area would also experience a significant increase, 55 percent.

Development of Fort Collins is generally projected to Harmony Road in the south, to Overland Trail in the west, and along the south bank of the Cache La Poudre River in the east and southeast. Major expansion is projected to the north of the river, the cluster of lakes in the northeast. Extensive development in this area is encouraged to offset the adverse economic impacts on the older downtown area of recent residential and commercial developments in the south of town. This will substantially increase the number of residents in close proximity of the downtown area and should encourage private sector redevelopment of the areas. Residential units could be clustered around the lakes and interconnected with common recreational spaces, which are also linked to the lakes, thereby maximizing the potential of this area to become a very desirable residential community.

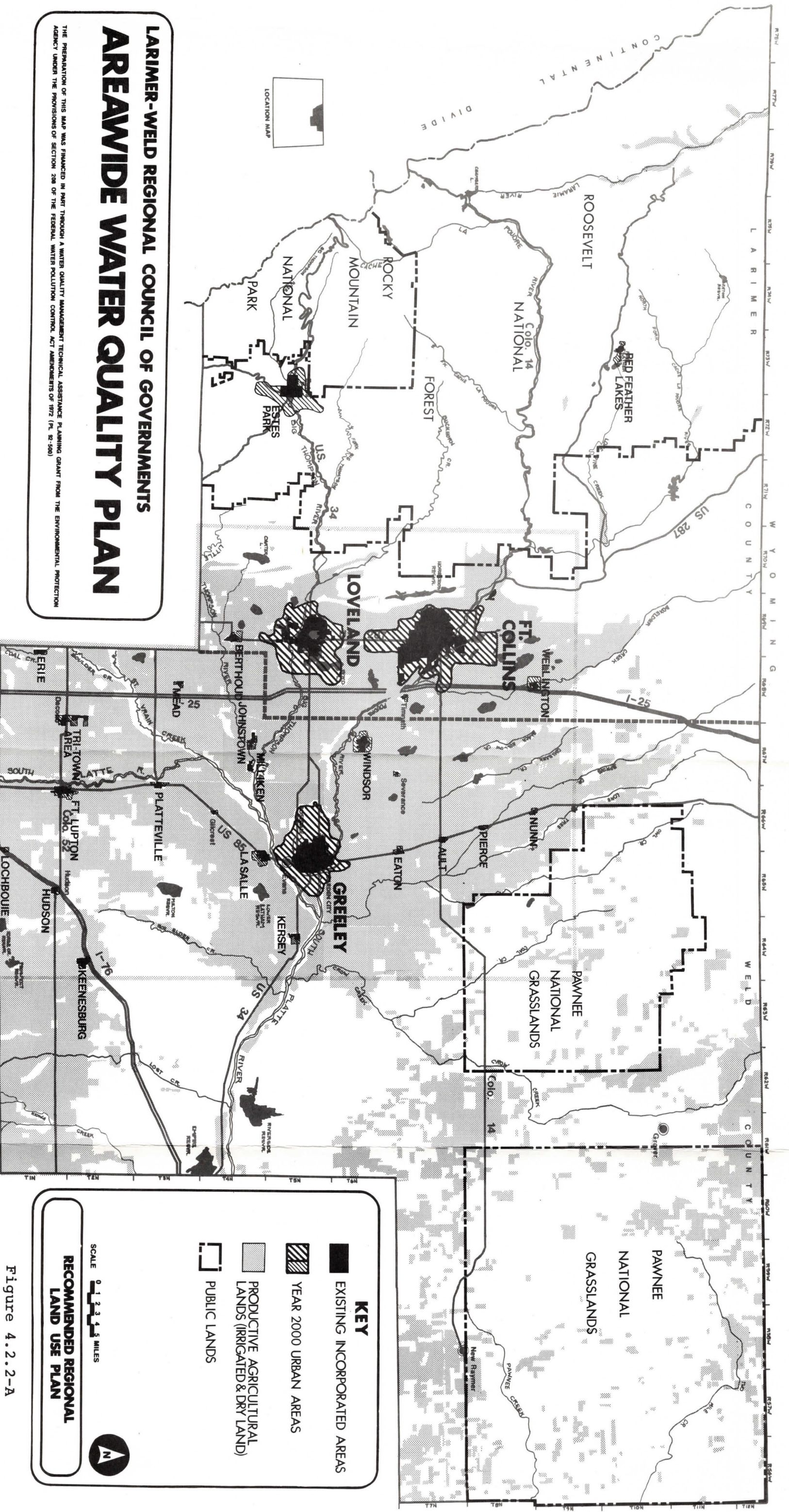
In areas surrounding the downtown commercial sector, it is proposed to increase residential densities. This, coupled with the proposed development in the north, is intended to further increase the residential base for commercial uses in the downtown area.

Southeasterly growth of Fort Collins is proposed to extend to Hewlett Park and on Harmony Road. Intensification of Fort Collins industrial uses primarily is focused along Colorado Highway 14, within and adjacent to the flood plain of the Cache La Poudre River. Presently, the area is characterized by a scattering of industries. Vacant parcels should be infilled with uses compatible with those existing.

TABLE 4.3.2 POPULATION DENSITY OF MAJOR URBAN AREAS FOR RECOMMENDED LAND USE PLAN (a)

Area	Existing 1975 Acreage (b)	1975 Population (c)	1975		2000		Percentage Change in Density
			Population Density (People/acre)	Acreage	Population Density (People/acre)	Population	
<u>Larimer County</u>							
Fort Collins Area	13,500	63,600	4.7	30,000	165,400	5.5	+17
Fort Collins		60,000			149,400		
Boulder, S.D.		1,500			6,000		
S.F.C., S.D.		1,500			10,000		
Loveland Area	6,000	24,926	4.2	10,900	60,900	5.6	+33
<u>Weld County</u>							
Greeley Area	13,134	57,932	4.4	19,000	129,700	6.8	+55
Greeley		53,500			115,850		
Garden City		197			250		
Evans		3,455			9,100		
La Salle		780			4,500		
Windsor	800	2,426	3.0	2,000	10,000	5.0	+67

- (a) Toups Corporation, 1977.
- (b) LWCOG.
- (c) Local Planning Departments.



LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS
AREA-WIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 (PL. 92-503)

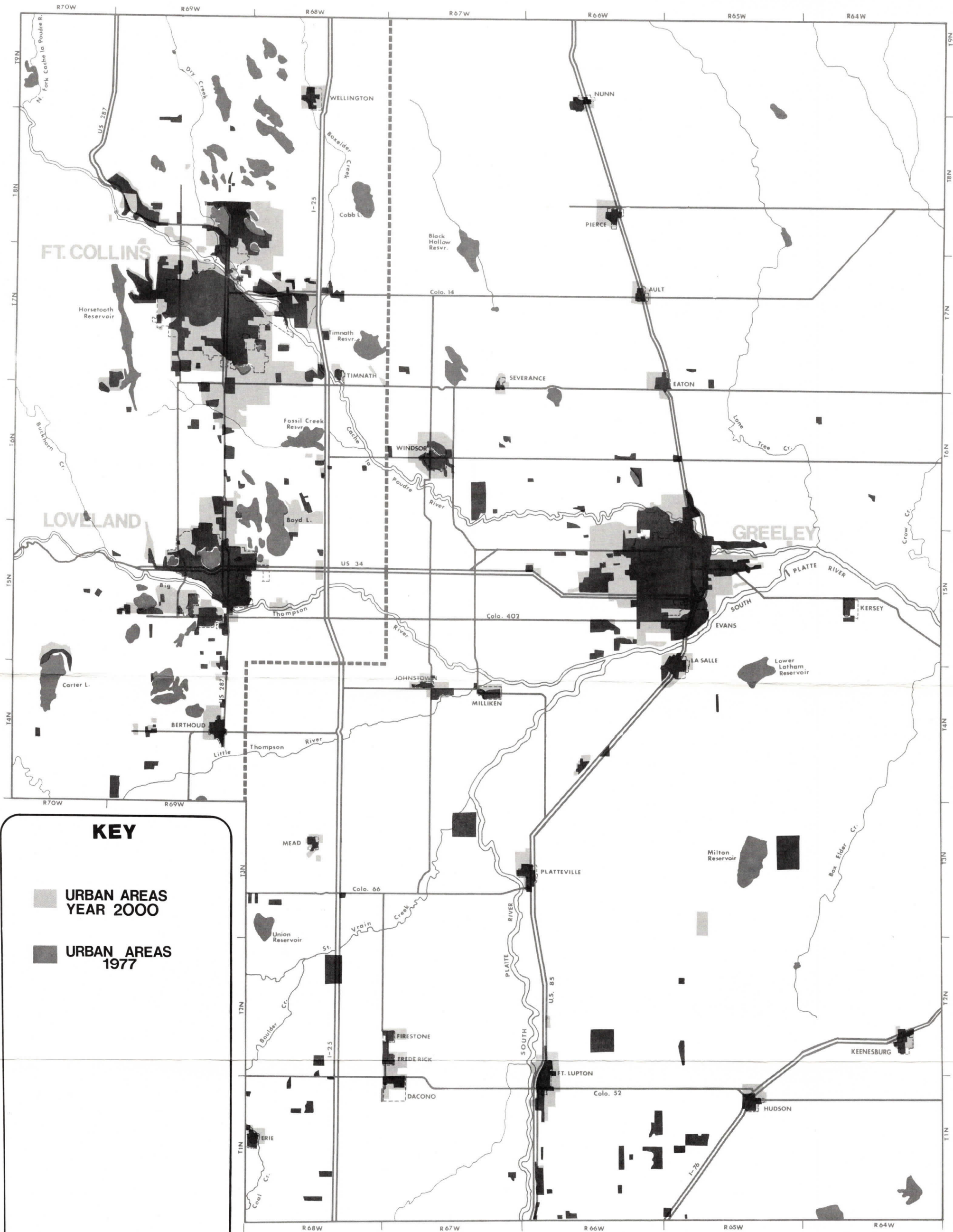
KEY

- EXISTING INCORPORATED AREAS
- YEAR 2000 URBAN AREAS
- PRODUCTIVE AGRICULTURAL LANDS (IRRIGATED & DRY LAND)
- PUBLIC LANDS

SCALE 0 1 2 3 4 5 MILES

RECOMMENDED REGIONAL LAND USE PLAN

Figure 4.2.2-A



KEY

- URBAN AREAS YEAR 2000
- URBAN AREAS 1977

SCALE



**Alternative E
Consultant's Recommended Plan**

LARIMER-WELD REGIONAL COUNCIL OF GOVERNMENTS

AREAWIDE WATER QUALITY PLAN

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A WATER QUALITY MANAGEMENT TECHNICAL ASSISTANCE PLANNING GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 208 OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972 (PL 92-500)

Figure 4.2.2-B

March, 1977

Between Fort Collins and Loveland, a residential planned unit development, accommodating a population of 10,000 is proposed. Development of this character offers the opportunity to avoid continuous sprawl along U.S. Highway 287, provision of open space recreational and visual corridors, and establishment of a unique community image, clearly distinguishing the area from adjacent residential development.

Loveland is characterized by growth to the southwest, west, north, and northeast. Development in the Southwest will constitute a major new section of the community. New commercial development at the intersection of U.S. Highway 287 and 28th Street should be expanded to serve the increased residential population. If sufficient demand for a major department store occurs, it should be located here.

A light intensity industrial park is proposed near the Fort Collins-Loveland airport. Aside from serving as a buffer between the residences and the airport, it capitalizes on the potential attractiveness small-scale airports offer to research and development types of industries.

Flood plains of the Cache La Poudre, Big Thompson, Little Thompson, South Platte River and St. Vrain, and Boulder Creeks are depicted for the development of a continuous greenbelt linking communities along these rivers. This would facilitate the protection of life and property due to periodic flooding and provide a major recreational amenity traversing the Region.

Areas currently in agricultural production (irrigated and nonirrigated farmlands), excluding those proposed for conversion to urban use, are designated for continued agricultural use. To the maximum extent feasible, fragmentation of these lands has been minimized to promote their continuing viability. In addition to their crucial role as a source of food, these areas act as significant open space buffers between the communities in the Region.

Throughout the Region sensitive ecological habitats have been classified as areas for resource management, thus prohibiting urban development and encouraging, in most cases, passive recreational activities. Activities herein should be limited to wildlife observations; hunting, fishing, cattle grazing, and development should be prohibited.

In the confines of the Region, there are nearly 1,500 square miles of federally owned or controlled land. Most of this land is in the Rocky Mountain National Park, Roosevelt National Forest, and the Pawnee National Grasslands. Much of the land in the Rocky Mountain National Park and the

Roosevelt National Forest is subject to intensive recreational use by residents of the Region, but even more so by tourists. The number of park visitors is expected to increase substantially by the year 2000, while the provision of physical facilities will be minimized. In response to the increased need for tourist facilities, Estes Park is anticipating a population increase, with growth occurring to the south and east.

Another area that is being affected by increased residential use in the mountainous portions of Larimer County is the Red Feathers Crystal Lake area. In excess of 3,000 lots have already been subdivided in this area. It is anticipated that the majority of these lots will be purchased for second home sites by residents of the Region and by people living outside the Region. However, the resident population of this area is also expected to increase significantly resulting in the creation of a small community. Future data updating, suitability analysis, and land use planning should be considered for the outlying areas of the Region to facilitate an orderly use of the Region's land resources.

It is the conclusion of the LWRCOG planning staff to recommend Alternative E, Consultant's Recommended Plan, as the best guidelines for the future growth and development of the Larimer-Weld Region.