

City of Beaver, Utah

GENERAL PLAN

Adopted September 27, 1994

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**ORDINANCE NUMBER 50
(GENERAL PLAN)**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BEAVER, UT, ADOPTING THE
BEAVER CITY GENERAL PLAN, RELATING TO GENERAL LAND USE PLANNING.

Preamble

In order to provide for the health, safety and general welfare of the citizens of Beaver, UT, the City Council is committed to establish a general plan which will specify goals, relating to land use, housing, the environment, transportation and public facilities and services, which the residents of Beaver hope to achieve during the next twenty years and policies which will facilitate those goals.

WHEREAS, the City desires to adopt a general plan to be known as the general plan of the City of Beaver, UT; and

WHEREAS, the City Council is authorized to adopt a general plan; and

WHEREAS, the general plan may address issues, among others, related to land use, transportation, the environment, housing and public facilities and services; and

WHEREAS, the Planning Commission has held several publicly noticed meetings in part to discuss the provisions of the general plan; and

WHEREAS, Utah State Code sections 10-9-301 through 10-9-306, set forth procedures for the adoption and content of a general plan; and

WHEREAS, the Planning Commission of the City of Beaver held a duly advertised and noticed public hearing for the purpose of receiving public comment regarding the content of the general plan; and

WHEREAS, the City Council of the City of Beaver held a duly advertised and noticed public hearing for the purpose of receiving public comment regarding the content of the general plan;

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Beaver, Utah, as follows:

- (1) The general plan attached is hereby adopted as the General Plan of the City of Beaver, Utah.
- (2) Pursuant to Utah Code 10-9-303(6)(b), all building and land uses shall be in compliance with the General Plan. No building permit or other land use permit shall be issued except in compliance with the General Plan.
- (3) All ordinances adopted subsequent to this General Plan shall comply with the goals and policies as set forth herein.
- (4) This ordinance shall take effect immediately on passage.

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Introduction

Authority and Purpose

The Land Use Development and Management Act

The Municipal Land Use Development and Management Act of the State of Utah provides each city the opportunity to establish a planning agency and a planning process to guide future growth in accordance with a framework of officially adopted goals and policies directed to land use, circulation, housing, environmental quality, wise use and conservation of resources, safety, and other relevant physical, social, and economic factors. To carry this out, Section 10-9-301 of the Utah Code directs the Planning Commission to prepare, and the legislative body to adopt a comprehensive, long term, General Plan for the city and any land outside its boundaries, in which the Planning Commission's judgement, bears relationship to its planning.

According to the Utah Code Section 10-9-302 (2)(a) The General Plan may include a land use element, transportation and circulation element, environmental element, public services and facilities element, rehabilitation, redevelopment and conservation element, economic element, recommendations for implementation and any other elements considered appropriate.

In addition to the "proposed general distribution and location and extent of the uses of the land....", this Land Use Element includes policies which when followed and when correlated with all other elements of the plan will bring about the uses designated and services required. The policies of the various Elements should be mutually reinforcing. In no case should conflicting policies be recommended or adopted. The Land Use Element attempts to integrate the policies of all the Elements of the Beaver City General Plan.

Role of the General Plan

The General Plan plays several major roles. The City Council and its appointed Boards and Commissions use it as a "yardstick" against which all planning decisions are measured, including those by Federal and State Officials. Simply, development that is in harmony with the General Plan should be encouraged; development that is not, may need to be modified. Following this process, the Plan is transformed from "paper to reality."

It is used by citizens and potential residents in making personal decisions and economic commitments. It plays a key role in helping business and industry make decisions in terms of establishing or relocating in the city, or expanding existing facilities.

Value of the General Plan

The Value of the General Plan is only as good as the support that it gets from the leadership and the citizens of the city. While it is conceived and created, to a great degree, by the City Council, with guidance from the Planning Commission, its ultimate long-term support and success must come from the city as a whole.

With challenges posed to the city from Federal and State land management programs, few long term employment opportunities, and expansive distances between necessary services, the residents cannot absolve themselves of their civic responsibility. It is hoped that this document will encourage involvement by all citizens to make Beaver City an even better place to live up to the year 2010 and beyond.

Preparation

Preliminary drafts of the General Plan's goals and policies were published in _____. Revisions to the Plan's goals and policies were published in _____. Each revision of the Plan Elements has reflected continuing public comment and review by those responsible for the Plan's implementation.

Related Plans and Programs

Though the Land Use Element is largely governed by the Utah Code and the local legislative body, there are a number of other plans and programs that also are considered in the formulation of land use policy.

1. Beaver City Zoning Ordinance The zoning ordinance will serve as the primary implementation tool for the Land Use Element and the goals and policies contained herein. The zoning map should be consistent with the land use map contained in the General Plan. The land use designations contained in this element and the areas designated for each category correspond to one or more zoning districts.
2. Beaver City Subdivision Ordinance. The subdivision ordinance is another main tool in reaching the goals as stated in the general plan. This ordinance should be used to see to it that infrastructure is developed within city subdivisions which will help satisfy public service goals of the general plan and that neighborhoods accomplish a main goal of retaining as much as possible a country type setting in Beaver City.
3. Beaver City Nuisance Ordinance. The nuisance ordinance can serve to upgrade deteriorating or blighted areas of town which have a negative impact on Beaver City's reputation and marketability. This ordinance can, among other things, enhance the desirable qualities found in existing neighborhoods.

Relationship to the Zoning Map

As mentioned above, the Zoning Ordinance is one of the primary tools used in implementing the General Plan. Like the General Plan, the Zoning Ordinance has an accompanying map which identifies classifications for each portion of land within the city. These two maps should correspond in relationship to compatibility of land use or zoning designation. Please refer to the current Zoning Map on page 11 which shows zoning designations as of the date of the adoption of this General Plan.

Relationship to the Annexation Policy Declaration Map

Currently Beaver City provides services to areas lying outside and abutting current city boundaries. Because of this and because there are areas near the city which are desired for annexation at some point, an Annexation Policy Declaration with accompanying map, has been prepared (See map page 12).

Utah State Code allows this and in fact requires an Annexation Policy Declaration for any annexation which includes more than 5 acres. Annexation regulations are found in Title 10, Section 2 of the Code.

Because of the above requirement and because it is expected that Beaver City will grow past its current boundaries, the planning work within this general plan includes the entire area shown on the Annexation Policy Declaration Map (See map page 12). In general terms this includes areas northeast of town and southwest of town including the airport. This type of planning effort is also provided for in the Utah State Code under Title 10, Section 10-9-302 (b).

Use of a Tier System for Growth Management

In June of 1993 Beaver County adopted a new general plan. Included within that plan were goals and policies related to the development of a tier system technique for growth management. The tier system designates certain areas as urbanizing, planned urbanizing, and future urbanizing based upon proximity to necessary services and other considerations. Refer to Appendix A, page 90, for greater detail on the criteria for tier delineation.

This type of system, along with other growth management goals and policies stated within this plan, will aid Beaver City in providing for the best development and wisest use of scarce funding sources. This can be accomplished by allowing development progressively outward rather than "leap frog" type development practices which tend to be more costly in terms of public service availability.

Beaver City will utilize a complimentary tier system in an effort to provide for the highest coordination of planning efforts in and around Beaver City. Refer to Appendix A, page 90, for greater detail on the criteria used for tier delineation. The delineation of Beaver City Tiers is shown on the Tier/Capitol Improvement Growth Areas Map on page 13.

History

The first white men in the Beaver Valley were probably travelers on the Spanish Trail. Historians believe that a branch of the Spanish Trail broke off the main trail at Fremont Pass, and passed through North Creek, near Beaver City.

Beaver's first settlers began their journey from Parowan. They arrived in the Beaver Valley in February of 1856. The town itself was surveyed in 1858. The settlement's early growth was in part due to the abandonment of the San Bernardino, California Mission in 1858 and of Circleville in 1866. Beaver Valley was plagued with Indian problems periodically between its settlement and 1870. As the town continued to prosper, the raids subsided.

In 1873 Fort Cameron was built just outside Beaver City. The fort operated successfully until 1883. The L.D.S Church acquired the buildings at Fort Cameron in 1898 for an extension of the B.Y.U. Academy. In 1908 the school became an independent school and the name was changed to the Murdock Academy. The Murdock Academy operated successfully until the 1920's when free high schools were introduced. The Murdock Academy closed its doors in 1922.

Agriculture was Beaver City's first important industry. Local climate conditions required the irrigation of farmland. The early pioneers dammed the Beaver River and used the waters for irrigation. Later, other streams were also used to irrigate crops.

Other industries in Beaver City include weaving and tailoring, the carding of wool, tanning of hides, creameries and dairies, and sawmills. One of the city's most important industrial concerns was the Beaver Woolen Mills. Established in 1870, the Beaver Woolen Mills was a major influence in Beaver City until it closed its doors at the turn of the century.

Beaver City's first commercial establishment was the Beaver City Co-op. Besides being the first commercial establishment in Beaver City, the Co-op occupied the first building of any significance in Beaver City. The Co-op was established in 1872.

In 1867, the Legislature of the Territory of Utah passed an act to incorporate Beaver City. Originally Beaver City consisted of six square miles. This was later changed to two square miles.

Statement of Custom and Culture

Beaver has long been noted for the fine culture that is so rarely available in small rural communities. The old Opera House, which was the center of entertainment in the earlier days, has been refurbished and now has a beautiful little theater where the Beaver Civic Arts are responsible for at least 3 fine productions each summer season. These productions use our own local talent both for performers and directors in which our small city has an abundance. This has become a real tradition, with an occasional production during the Christmas season.

The high school has several theater productions both drama and musical each year and we have always been proud of our outstanding choruses and bands.

The people of Beaver have always supported the youth of our community, realizing they are the most important asset we have. It is customary that all sport activities such as football, basketball, baseball, volleyball and track are supported by the entire community. When our teams are playing championship games, our little city is like a ghost town, as everyone follows the team giving whole hearted support, and we do take our share of the championships.

In the summer we have 3 outstanding race meets, June, July and August, with the big celebration being the 24th of July. Parade, program, children's races and other activities on the city park and the Dairy District Derby horse racing in the afternoon and most likely a rodeo, dance and fireworks in the evening. The same time of year is a great home coming for all who have moved and love to return. Class reunions are a great custom. Many golf tournaments are held on our beautiful 9 hole course nestled at the mouth of Beaver Canyon known as Canyon Breeze. The Southern Utah Amateur is always held in July, with entries coming from all over the intermountain area to participate. The ladies golf association sponsors a fine tournament each year.

Our city offers a variety of religious choice but is predominantly LDS. These various religious organizations along with the city and civic organizations provide many activities for our youth. On most summer's evening you can attend a softball game, both girls and boys teams. Both city and church have teams giving boys and girls the opportunity to participate.

Little league is of great importance with adults giving of their time and talent to teach our youth.

For a small city, we have a beautiful swimming complex. Swim teams play an important part in our community.

A few miles to the East lie the beautiful Tushar Mountains with a beautiful ski resort offering both winter and summer sports. Horse back riding, hiking, bicycling, beautiful lakes and streams for fishing and providing game for hunting. The deer hunt being a great tradition, with hunters from most of the western states coming to enjoy camping, hunting and just the great outdoors with blue sky and fresh air.

Vision Statement

In order to determine goals with which future growth and development may be directed, a community must first determine the overall purpose or vision of the general plan. At the outset of the general plan process, a "Vision Statement" was drafted to define that purpose or vision. During the drafting of the "Vision Statement" as shown below, particular attention was paid to strong and weak points of Beaver City as well as traditional values, custom and culture, future economic realities and current issues the city faces. After careful consideration the community of Beaver City, UT resolves:

"To maintain a clean and attractive community based on a high quality country atmosphere with emphasis on well rounded community services and programs"

General Community Goals

- 1. Retain a country atmosphere**
- 2. Encourage development of high quality jobs and business**
- 3. Encouragement clean industry to locate in town**
- 4. Provide local ordinances based on sound planning principles**
- 5. Plan for the provision of all necessary city services**
- 6. Encourage a variety of retail shopping opportunities**
- 7. Encourage greater interaction with those traveling along I-15**
- 8. Retain the city's youth through greater employment opportunities**
- 8. Establish a variety of areas suitable for a variety of housing types**
- 10. Encourage recreational facilities and enterprise**
- 11. Maintain a clean community**

Location and Setting

Physical Characteristics and Regional Setting¹

Beaver City is located in the Southwestern quarter of the State in the eastern portion of Beaver County which is bounded by Nevada on the west, Iron County to the South, Piute and Sevier Counties on the East and Millard County to the north. The City is nestled against the foothills of the Tushar Mountains. The Tushar range is part of the High Plateaus section of the Colorado Plateau, which consists of a series of rolling hills, upland summits separated from the surrounding lowlands by impressive scarps. The Tushar range is home to one of Utah's highest peaks, "Mt. Delano", with an elevation of 12,173 feet. The individual plateaus within this area are separated by river valleys which have been eroded along fault zones. Beaver City enjoys a variety of terrain, on all sides, which include mountains, dessert, bogs, and meadows. In addition the Beaver River borders the south and east city boundaries. The Tushar Mountains are riddled with many small lakes which adds to the breathtaking beauty available to city residents and visitors to the area. Soils in the area are generally classified as mollisols. Characteristics of mollisols include a thick dark and relatively fertile surface soil which has been formed under grassland vegetation or in forested zones where grasses are an important factor. Mollisols support rangeland, wildlife habitat, recreation, and timber in the higher elevations and non-irrigated cropland, rangeland and wildlife habitat in the lower elevations. Beaver City lies within a Pinyon/Juniper vegetation zone. Beaver City as well as much of the State lies within the Intermountain Seismic Belt which extends from northern Arizona through Utah, Idaho, Wyoming and Montana. However, because of it's location, the chances of major damage in an earthquake event are minimal. Beaver City lies in an area which supports deer herds, upland game, pheasants and waterfowl which adds to it's overall appeal.

Access to Beaver City is excellent because it lies along Interstate 15. Interstate 15 links Utah to points south and terminates in Southern California, putting Los Angeles within an eleven hour drive of Beaver City. Salt Lake City lies three hours to the north with Denver approximately seven hours to the east via Interstate 70.

¹Atlas of Utah

General Demographic Profile

Population and Housing

According to the 1990 decennial Census conducted by the United States Bureau of the Census (see Appendix B, page 101, for details), Beaver City's population had reached 1,998 which represents an 11.5% increase over the 1980 Census figure of 1,792. The median age of the city's population was 31 years and the median household income was \$20,893.

Of 775 total housing units 662 were single family dwellings, 52 were included in multi family structures (either 2-4 units, 5-9 units, or 10+ units) and 61 mobile homes. The number of persons per household in owner occupied dwellings was 3.03 while the number in rental units was slightly smaller at 2.79. The city as a whole has an average number of persons per household of 2.99.

With a total of 775 housing units² and a total current land area of 870.37 acres the city has a density of 1.1 dwelling units per acre. This figure of course varies depending on specific sites in town. Currently in town 290.69 acres are developed as single family, 2.6 acres for multi family and 12.41 acres are being utilized in trailer park use (see Appendix C, page 106). (see Appendix B, page 101, for demographic detail)

According to population studies conducted in the state³, Beaver City is expected to increase in population to 2,606 by 2020 or approximately 30% over the same time period.. By classifying and projecting the total population by the types of age-specific services each group consumes, the county can adopt goals and policies now that will enable it to adequately deal with the increased future demands in areas such as child care, education, employment and health care. For example, the following sample age categories have specific needs (see Appendix D, page 108, for detail):

0-4 Day care and preschool users.

5-17 In addition to after-school day care, all children must have access to tot lots, play fields, public schools and libraries for their development. Adolescents between the ages of 15-17 impact the high schools, local transportation systems, public parks and recreational facilities.

30-39 In light of surging home prices, the 30-39 year age group represents the first time home buyers of the 1990's. Necessary proximate services include supermarkets, shopping centers, churches and banks. The desirability of the area hinges upon the perceived quality of schools, employment opportunities, and the surrounding housing values.

Demographic information at the detail needed to evaluate age group categories is only available on a county scale (see Table 1, below & Appendix E, page 113). Information for this portion of the profile is from county data provided by Utah State Office of Planning and Budget⁴. According to these projections age groups from 18-29 and 65+ will have the greatest increase. However as can be expected all age groupings will see an increase for the time period from 1990-2020.

²Five County Association of Governments Comprehensive Housing Affordability Strategy, 1993-1994

³Source: Governor's Office of Planning and Budget

⁴State of Utah, Economic & Demographic Projections 1992, Table D-4, pgs. 124-125

Table 1 - Population Increase By Age Group

| Age Group | 1990 | 2020 | % increase |
|------------------|-------------|-------------|-------------------|
| 0-4 | 382 | 540 | 41 |
| 5-17 | 1270 | 1445 | 14 |
| 18-29 | 610 | 1006 | 65 |
| 30-39 | 625 | 742 | 19 |
| 40-64 | 1102 | 1535 | 39 |
| 65+ | 775 | 1235 | 59 |
| Total | 4765 | 6503 | 36 |

The increases shown above indicate that all municipal services throughout the county will need expansion, and that the greatest expansion should occur in possibilities of access to higher education, employment opportunities and affordable housing for the 18-29 age group health care and social services for the 65+ age group.

Current Zoning Map

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Annexation Policy Declaration Map

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Urban Growth Boundary Map

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AND

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Land Use Element

Introduction

The Land Use Element is designed to promote sound land use decisions throughout the city. The pattern of land uses--their location, mix and density is a critical component of any planning area. The Land Use Element is organized to plan sufficient land for residential, commercial, industrial, and public uses; locate these uses appropriately to enhance community character; preserve important natural resources; and enable the city to efficiently insure adequate public services are provided for city residents. Appendix F, page 115, includes information concerning current infrastructure development in the city, while Appendix A, page 90, gives appropriate levels of service for future infrastructure development. This element includes the Existing Land Use Map & Future Land Use Map (pages 29 & 30) which indicates existing and future land uses within the General Plan Area and the Infrastructure Map (page 31) which shows the location of all existing infrastructure development.

Key Land Use Element Issues

1. Accommodation of Growth in Accordance with the city's Goals and Policies and Regional General Welfare. The Land Use Element establishes a planned pattern for development of the city for the Next twenty years, and beyond. It reflects the city's historical development patterns, and the pattern, amount and types of new development occurring today. The Element provides an advanced view of what the city should become in the years ahead and acts as a guide for informed decision making in development matters, keeping in mind important concerns such as infrastructure availability, development compatibility and the city's desire to retain the natural environment.
2. Land Use Compatibility. The development and mapping of the Land Use Categories reduces the potential for incompatible land uses within the land use district or adjacent to one another. The goals, policies, and implementation measures of the Plan provide additional guidance for ensuring compatibility between dissimilar land uses.
3. Preservation of Natural Environment and Open Space. The preservation of natural environment and open space is one of the overriding concern of Beaver City's citizenry. The General Plan must recognize the importance of the natural environment and incorporate these goals and objectives into each Element of the Plan and into regulations for each land use category and the total implementation structure of all ordinances.
4. Joint Planning. Resolution of growth issues with municipalities and other service providers within the planning area is an essential feature of the Land Use Element in order to provide for orderly contiguous growth of areas surrounding these more urbanized areas and resultant coordination of the land use intensities, approval process, establishment of appropriate levels of service standards and coordination of capital improvement provision and a smooth transition for boundary adjustment where appropriate. The formal joint planning process will be accomplished through intergovernmental agreements and following specified plan amendment procedures.

Population and Employment Growth

Beaver City is projected to experience moderately high growth over the time period of this General Plan (see Table 2). As such, the ratio of land designated for residential, commercial, and other uses, should be balanced to meet the modest growth projections. Such planning will ensure that the city

will not jeopardize the achievement of other important Beaver City objectives by only incurring those public improvement costs necessary to accommodate the anticipated growth. The plan is designed to accommodate the anticipated 20 year population and employment projected for the city in locations which maximize the value and minimize the effects of growth on the city's environment and quality of life. Within the city, development intensities will be planned to support this level of growth. This will ensure that the city is accommodating its regional fair share of projected population and employment growth.

No source specific only to Beaver City is available which gives labor market and employment data. However, Beaver County information is available and it is hoped that this information will aid Beaver City in planning for the future. Table 3 contains county data regarding employment in mining, construction, Manufacturing, Transportation/Communications and Public Utilities (TCPU), Trade, Finance/Insurance and Real Estate (FIRE), Service and Government. This data shows that in the time period from 1982-1993 manufacturing has seen the greatest increase and mining has seen the greatest decrease as percentage employed. Because of these shifts in employment in the area, this plan will encourage greater manufacturing employment opportunities. Table 4 shows the relationship between city and county income levels.

The majority of land (33.39%) within Beaver City boundaries is currently in single family residential use. While many residential lots incorporate pasture or agricultural facilities, a surprisingly small percentage (8.63%) of total land area is agriculturally oriented in primary use. A large amount of agricultural land does however surround the city. One third of the area of town is used as roadway right-of-way and only seventeen acres in town are considered unbuilt. (see Appendix C, page 106, & map, page 29)

In order to be an effective tool in guiding future land uses and growth in the community, the general plan should utilize mapping which specifies the type, intensity and location of land uses in town. The land use designations should, in general terms, identify in policy form the nature of the designation and list typical activities which are permissible in the general area. (See Appendix G, page 123)

Table 2 - Historic and Projected Population Growth⁵

| Year | Beaver City | Beaver County | Southwestern Utah |
|-------------|--------------------|----------------------|--------------------------|
| 1970 | 1,453 | 3,800 | 35,240 |
| 1980 | 1,792 | 4,378 | 55,509 |
| 1990 | 1,998 | 4,765 | 83,263 |
| 2000 | 2,245 | 5,417 | 122,785 |
| 2010 | 2,485 | 6,209 | 170,963 |
| 2020 | 2,606 | 6,500 | 207,680 |

Table 3 - Nonagricultural Payroll Employment in Beaver County⁶

| Category | 1982 | % | 1984 | % | 1988 | % | 1993 | % |
|-----------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
| Mining | 22 | 2.13 | 14 | 1.06 | 2 | 0.15 | 6 | 0.42 |
| Construction | 29 | 2.81 | 180 | 13.72 | 27 | 2.09 | 35 | 2.47 |
| Manufacturing | 37 | 3.58 | 31 | 2.36 | 76 | 5.90 | 89 | 6.28 |
| TCPU | 121 | 11.73 | 221 | 16.85 | 181 | 14.06 | 150 | 10.58 |
| Trade | 293 | 28.41 | 313 | 23.87 | 348 | 27.03 | 427 | 30.13 |
| FIRE | 29 | 2.81 | 28 | 2.13 | 30 | 2.33 | 38 | 2.68 |
| Services | 126 | 12.22 | 154 | 11.74 | 203 | 15.77 | 162 | 11.43 |
| Government | 374 | 36.27 | 370 | 28.22 | 420 | 32.63 | 510 | 35.99 |
| TOTAL | 1031 | 100.00 | 1311 | 100.00 | 1287 | 100.00 | 1417 | 100.00 |

⁵Governor's Office of Planning and Budget

⁶"Utah's Southwestern District", first quarter 1993

Table 4 - Income Level Comparison⁷

| Income Category | Beaver City (\$) | Beaver County (\$) |
|------------------------|-------------------------|---------------------------|
| Median Household | 20,893 | 21,092 |
| Median Family | 25,403 | 25,000 |
| Median Nonfamily | 7,901 | 8,402 |
| Per Capita | 8,435 | 8,558 |

Health Care

Beaver City sports a range in medical amenities and is home to the Beaver Valley Hospital, a 20 bed facility. Other health care facilities in town include the Beaver Medical Clinic a Southwest Utah Mental Health facility and a 30 bed long term care facility.

The Beaver Medical Clinic is a family practice clinic which is equipped to handle emergencies in addition to routine examinations and immunizations. The Clinic has 2 doctors on staff.

Southwest Utah Mental Health is a mental health provides outpatient counseling, drug and alcohol assessment and counseling, individual therapy, child play therapy, family counseling, marital counseling and victim counseling. It is also a referral service for the perpetrators of men's anger or violence and sexual abuse. In addition the facility staff provides various programs for adolescent education and awareness.

Education

Utah leads the nation with 85.1 percent of its eligible population graduating from high school, and is third in the with 22.3 percent obtaining a Bachelor's Degree or higher (see Table 5). No data is available specific to Beaver City, however Beaver County data may be helpful. Beaver County's percentage of high school graduates, 83.4 percent, is comparable to the Utah figure.

Beaver City Public Schools:

Belknap Elementary
Beaver High School

A study by the State Board of Education on graduating seniors in 1984 revealed that 279 out of 362 (77.1 percent) senior students reported they were college bound. On the State level, 11,785 out of 19,250 (61.2 percent) graduating seniors reported they were college bound.

Education levels are important to expanding companies looking for new industrial sites for two reasons. The first is the company wants to be assured of hiring quality workers, and achieved education levels is a good indication. Second, management employees that must relocate at the new site want to be assured that their own children will have educational opportunities. The following table compares achieved educational levels, by the percent of residents for each category, in contiguous states and the country.

⁷United States Bureau of the Census, 1990 Census

Table 5 - Achieved Educational Levels 1990⁸

| Criteria | Beaver County | Utah | Arizona | Colorado | United States |
|-------------------------------|--------------------------|-------------|----------------|-----------------|--------------------------|
| 25 Years and Older | | | | | |
| High School Graduates | 83.4 | 85.1 | 78.7 | 84.4 | 75.2 |
| Bachelors Degree or higher | 9.0 | 22.3 | 20.3 | 27.0 | 20.3 |

⁸United States Bureau of The Census, 1990 Census

Goals and Policies

Growth Management

GOAL 1: To preserve the character and the integrity of Beaver City by permitting orderly growth through synchronization of development with the availability of public facilities such as roads, sewers, water service and schools needed to support it.

- Policies:**
- 1.1 Develop and implement a Public Facilities Ordinance which requires the construction of adequate infrastructure within a defined period of time as a condition of development approval.
 - 1.2 Prepare an Annual Growth Monitoring Report to the community that includes the status of all projects, the status of capital improvements for roads, sewers, water, schools and libraries, and a status report on the development trends in Beaver City.
 - 1.3 Incorporate into the annual Capital Improvement Program a timetable for eliminating any infrastructure deficit and provide for an annual goal for such reduction.
 - 1.4 Continue to pursue a policy of cooperation with governmental entities that administer and control areas bordering Beaver City. Encourage a full exchange of information between Beaver City and surrounding governmental entities on all policies/activities which may have cross-boundary impacts.
 - 1.5 Ensure that demand for public facilities and services does not exceed the ability to provide and maintain such facilities and services; necessary facility improvements should precede or be coordinated with future development.
 - 1.6 Ensure that facilities and services are provided in a timely manner through collection of developer fees.
 - 1.7 Consider school adequacy when evaluating development proposals under the land use plan.
 - 1.8 Consider water and sewer availability when evaluating development proposals under the land use plan.
 - 1.9 Consider adequate access routes when evaluating development proposals under the land use plan.
 - 1.10 Review annexation activities with a view toward eliminating unnatural pockets of county property within natural city boundaries and incorporation of segments surrounding the city which benefit from city services.
 - 1.11 Encourage "pay as you go" fees for development.

Adequacy of Public Services, Facilities, and Utilities

GOAL 2: Work with utilities and other service providers to ensure adequate and safe public infrastructure and public services for city residents, including upgrading and expansion of existing deficient systems.

- Policies:**
- 2.1** Work with service providers to determine standards for the following regulated utilities and services:
- *Water--Supply and Treatment
 - *Sewage--Collection and Treatment
 - *Storm Drains/Flood Control
 - *Natural Gas
 - *Electricity
 - *Schools
 - *Libraries
 - *Hospitals
 - *Ambulance
 - *Paramedics
 - *Communication Services (other than cable television franchises)
 - *Solid Waste Collection, Conversion, Reduction and Disposal
 - *Roads
- 2.2** Establish and maintain a record of the capacity, utilization, and availability of the above mentioned services, utilities, and facilities serving the planning area.
- 2.3** Prepare, monitor, and update a comprehensive capital improvements plan involving all service providers. Use this plan to identify all planned and proposed capital improvements, including new facilities and expansion of existing facilities and undergrounding of utilities.
- 2.4** Maintain law enforcement and fire protection personnel and service standards to ensure that all residents, businesses, and visitors to the city are protected.

Types and Mix of Land Use to be Designated in the Planning Area

GOAL 3: To achieve the development of a well-balanced, financially sound, and functional mix of residential, commercial, industrial, open space, recreational, institutional and educational land uses.

- Policies**
- 3.1** Encourage the development, in conjunction with the Housing Element, of a broad range of housing types to meet the needs of the existing and future residents of Beaver City, including, but not limited to, the development of single-family detached homes, condominiums, apartments, and manufactured housing.
- 3.2** Promote the development of service and neighborhood commercial activities to meet existing and future needs. These centers must be nonintrusive, sensitive to surrounding residential land uses.
- 3.3** Encourage light industrial, manufacturing, office, and research and development activities that will not adversely impact the environment, while providing employment opportunities.

- 3.4 Explore the use of utility rights-of-way for tree farms, nurseries, row crops, trails, and greenbelts.
- 3.5 Encourage the development of equestrian-oriented housing in areas that are presently equestrian-oriented, and ensure that other surrounding land uses are compatible with the adjacent equestrian zones.
- 3.6 Establish an Open Space District to acquire parcels that may not be suitable for development.
- 3.7 Provide for the reservation of adequate land to meet projected institutional and infrastructure needs.
- 3.8 Promote the development of commercial and industrial activities.
- 3.9 Discourage the development of strip commercial centers away from Main Street.
- 3.10 Promote the retention and expansion of existing agricultural businesses.

Distribution and Intensity of Land Use Development

GOAL 4: To achieve a balanced physical environment through sensible land use planning.

- Policies:**
- 4.1 Promote the development of community centers which encourage a pedestrian orientation and can accommodate a clustered mix of commercial, entertainment, recreation, town square/meeting place(s), and multi-use complexes.
 - 4.2 Actively pursue agribusiness development city-wide.
 - 4.3 Promote development of a historical district's which would include special lighting standards, restaurants, specialty shops, and encourage tourism.
 - 4.4 Promote the revitalization of community centers having historical and/or community-wide interest.
 - 4.5 Establish a potential pattern of attractive greenbelts, golf courses, open space, and entertainment/recreational amenities along Highways.
 - 4.6 Promote methods to enhance the availability of land for residential development within the framework of the land use element, zoning ordinance, and housing element.
 - 4.7 Locate higher density residential development and housing for the elderly in close proximity to public transportation and commercial land uses, and in close proximity to public services and recreational opportunities, and/or target the future provision of such services to accommodate existing or new housing for the elderly.

Quality and Maintenance of Development

GOAL 5: To ensure that development in the city is consistent with the overall community character and that it contributes in a positive way toward the city's image.

- Policies:**
- 5.1** Establish a land use pattern that is constructed around a framework of established greenbelts and a linear system of equestrian, pedestrian and bike trails.
 - 5.2** Promote the development of key gateway design identification measures that will promote a positive community image and implement community design themes where appropriate.
 - 5.3** Promote setbacks, landscaping, or other measures to provide physical and visual buffers between land uses to minimize potential land use conflicts between dissimilar uses.
 - 5.4** Promote the upgrading of Main Street commercial development.
 - 5.5** Identify and prevent further development of unsightly and inefficient land use patterns.
 - 5.6** Enforce building and safety codes and regulations concerning the upgrade, rehabilitation, or removal of deteriorated and dilapidated buildings, structures and sites.
 - 5.7** Maintain and enhance the desirable rural qualities found in the existing neighborhoods which are rural in character.
 - 5.8** Regulate lighting in new and existing development so that it does not unduly contribute to nighttime visual pollution and glare, and is compatible with surrounding land uses (tailor standards for lighting so they are compatible with the setting).
 - 5.9** Develop ordinances which support landscaping, art, signage and other design amenities that complement and enhance the streetscape and the design of new development.

Preservation of Natural Resources

GOAL 6: To provide protection of the environmental setting and habitat through the location of land uses and the use of sensitive design.

- Policies:**
- 6.1** Allow only responsible and sensitive development of hillside areas.
 - 6.2** Ensure that development, grading, and landscaping are sensitive to the natural topography and major landforms in the planning area.
 - 6.3** Encourage the utilization of adjacent county and BLM lands by actively encouraging multiple use.

Human Services and Facilities Required to Serve Existing and Future Development

GOAL 7: To encourage adequate social service programming for existing and future residents responsive to the needs of diverse populations, including, but not limited to, families with children, seniors and the frail elderly, minorities, persons with disabilities, immigrants, and the homeless.

- Policies:**
- 7.1** Support a cooperative relationships between the city, private agencies, and other social service providers to avoid duplication in the provision of similar social services.
 - 7.2** Provide human service information to the community through community-based organizations and coordination with private service providers.
 - 7.3** Promote services which are responsive to the needs of families and children.
 - 7.4** Promote city programs which utilize volunteer assistance for such things as park maintenance.
 - 7.5** Monitor availability of and encourage development of Headstart and literacy programs.
 - 7.6** Support the establishment of after-school parks and recreation programs that would accommodate children in elementary school and junior high-school.
 - 7.7** Support the development of recreation programs targeted to meet the needs of senior citizens, handicapped, youth, teens, and to prevent the proliferation of gangs.

Health Care Services and Facilities

GOAL 8: To promote the provisions of a broad range of high quality health care services to meet the existing and future needs of city residents.

- Policies:**
- 8.1** Provide health care services and programs which serve all segments of the population.
 - 8.2** Seek health care facility and program funding from city, state, federal, and private sources.
 - 8.3** Support the development of medical care facilities throughout the city.
 - 8.4** Promote the development and continuation of programs for seniors, children, families, and handicapped persons, including, but not limited to:
 - *Transportation/Dial-a-Ride for the elderly and handicapped
 - *Anti-Drug & Alcohol and illiteracy prevention education programs
 - *Daycare programs and facilities for children, seniors, and those with special daycare needs
 - *Wellness and medical screening programs to avoid major health care emergencies.

- 8.5 Advocate and assist in the coordination of programs for emergency management.

Education

GOAL 9: To encourage improved educational and training opportunities and services for the people throughout the planning area.

- Policies:**
- 9.1 Promote job education and training at the secondary school and college level.
 - 9.2 Support substance abuse and rehabilitation programs at high school, and the work forces through coordination with city staff, service organizations, school districts, the sheriff's department, and related agencies.
 - 9.3 Work with the school districts to promote improvement of the level of aptitude of high school students both academically and vocationally to surpass state and national standards.
 - 9.4 Promote the establishment of Head Start or similar programs.
 - 9.5 Promote the establishment of trade-technical schools.

Historic Buildings and Features

GOAL 10: To continue to preserve and maintain special historical features and landmarks as focal points in the planning area.

- Policies:**
- 10.1 Identify historical areas and structures of local significance to Beaver City.
 - 10.2 Encourage design measures for new development in historic areas, such as requiring adequate physical and visual buffers between historical areas and other land uses, and the use of compatible or similar construction materials and architectural styles so as not to detract from the integrity of historical features.
 - 10.3 Preserve and maintain historic neighborhoods and reinforce the historic theme by requiring new development to be compatible with existing historic structures and historical points of interest.
 - 10.4 Permit non-conforming uses, as appropriate, for buildings of historical and/or architectural significance.
 - 10.5 Encourage the use of historic lighting styles in historical districts to create a special sense of place.

Signage and Billboards

GOAL 11: To ensure that signage throughout the city is visually attractive and minimizes distraction.

- Policies:**
- 11.1 Enforce a comprehensive sign ordinance which calls for the elimination of non-conforming signs and which promotes distinctive signage for principal entries to

the city, unique districts, neighborhoods, and public buildings and parks.

- 11.3** Regulate new billboards in the city and encourage the elimination of existing billboards city-wide

Landscape Architecture

GOAL 12: To promote superior landscape design which emphasizes aesthetics, function, and water conservation.

- Policies:**
- 12.1** Encourage landscaping around residential, commercial, and industrial buildings and parking areas to enhance views from roadways and surrounding uses.
 - 12.2** Utilize landscaping techniques to screen incompatible land uses and create transition and buffer zones between conflicting use areas.
 - 12.3** Encourage major landscape themes to provide visual relief in the more urbanized areas.
 - 12.4** Develop landscape themes to accentuate the major public gateways to the city.
 - 12.5** Develop city-wide landscape and tree planting and replacement guidelines which promote low maintenance, drought-tolerant and fire-resistant species.
 - 12.6** Encourage incorporation of indigenous vegetation and compatible drought tolerant vegetation into landscape themes throughout the planning area.

Architecture

GOAL 13: To achieve architectural themes and form which promote human scale and provide a comfortable human interaction with buildings.

- Policies:**
- 13.1** Provide design flexibility for urban design and architectural concepts in order to avoid architectural monotony and lack of design innovation.
 - 13.2** Encourage the use of materials that complement adjacent buildings and their surroundings.
 - 13.3** Encourage design solutions that consider physical scale of the area and adjacent buildings.
 - 13.4** Examine potential opportunities for community theme elements within individual residential areas, neighborhood centers, recreation centers, landscaped street mediums, and other community facilities.

Infrastructure

GOAL 14: To achieve a coordinated and efficient infrastructure system which is visually

unobtrusive while designed to meet the current and future needs of the planning area.

- Policies:**
- 14.1** Encourage placement of transmission power lines and other mechanical equipment underground, where feasible, to maximize safety and minimize visual distraction.
 - 14.2** Require that all new onsite connections and utilities are installed underground and prepare and implement an undergrounding program for existing development, where possible.
 - 14.3** Develop coordinated planning programs to ensure the efficient placement and consolidation of utility facilities within new development.

Joint Planning

Goal 15: To insure that the plans and policies of Beaver Cities, Beaver County and other "affected entities" are compatible.

- Policies:**
- 15.1** The city shall negotiate the designation of certain areas of the county within the Beaver City Annexation Policy Declaration Map, as Joint Planning/Urban Expansion Areas, in which Beaver City and County shall develop plans which are consistent with all planning entities plans.
 - 15.2** The joint planning process shall be undertaken in two steps:
 - 15.2.1 The city and county shall create an interlocal agreement which establishes the process and subjects of the joint planning negotiations. This agreement may include provisions naming negotiators, identifying services and facilities to be discussed, and any other appropriate issue;
 - 15.2.2 When the negotiations have been completed and agreed to by both parties, the proposed joint plan will be subject to the General Plan amendment process of both the city and the county. This shall include all statutory notice and public hearing requirements and any other matters as indicated in the General Plan.
 - 15.3** The Joint Planning Areas shall be subdivided into the following:
 - 15.3.1 Joint Planning Area/Urban Expansion; and
 - 15.3.2 Joint Planning Area/Rural Protection
 - 15.4** When joint planning is required, the joint planning effort shall determine and resolve issues including, but not limited to:
 - 15.4.1 the manner in which zoning, subdivision and other land use approvals will be coordinated;
 - 15.4.2 the manner in which appropriate service level standards for determining adequacy and availability of public facilities and services will be coordinated;
 - 15.4.3 the grounds for the manner in which the rate, timing and sequencing of boundary changes will be coordinated;
 - 15.4.4 the manner in which the provision of capital improvements to an area will be coordinated;

15.4.5 the extent to which the city may exercise extra jurisdictional responsibility.

15.5 The need for joint planning may be based upon the following factors, among others:

15.5.1 Contemplated changes in municipal and special purpose district boundaries;

15.5.2 The likelihood that development, the provision or extension of capital improvements, or land use regulations will have significant impacts across a jurisdictional boundary;

15.5.3 How public facilities and services are and should be provided and by which jurisdiction(s).

Implementation of the Land Use Element

The primary tools with which the city should undertake to implement the Land Use Element of the plan include:

- ** A comprehensive zoning ordinance and accompanying zoning map
- ** Subdivision regulations
- ** Special Standards Districts
- ** Development agreements
- ** Capital facilities improvements program
- ** Community facilities program
- ** Building and housing codes
- ** Redevelopment
- ** Annexation and Sphere of Influence programs
- ** Growth management monitoring system and ordinance
- ** Impact fee ordinance
- ** Recycling and conservation programs
- ** Community monitoring guidelines for toxic/hazardous waste disposal transport and storage

Existing Land Use Map

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AND

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Future Land Use Map

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AND

INSERT MAP

Infrastructure Map

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AND

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Circulation Element

Purpose

The purpose of the Circulation Element is to provide and clarify the policies of the City of Beaver regarding the smooth flow of traffic along city streets. This plan gives definition to which streets in Beaver are intended for local traffic and which are intended to bring outside traffic to and from the commercial areas of the city.

Classification

Several systems are used to classify roadways. Systems have been developed which assign roadway construction/maintenance responsibility, funding distribution and administration, and numbering designations. For transportation network planning as well as specific design purposes, highways are most effectively classified by function. Roadways have two basic functions:

- 1) Provide mobility from point to point
- 2) Provide access to adjacent land uses.

From a design standpoint, these two functions have proven to be incompatible. For land access, low speeds are desirable, usually accompanied by inconsistent flows; for mobility, high speeds and uniform flows are desirable.

For example, freeways are designed and constructed to satisfy demand from the traveling public for high mobility. Rapid travel between points in a safe and uniform manner is the primary objective. Access to land uses is tightly controlled, limited only to spaced interchanges to preserve the high-speed, high-volume characteristics of the facility. Extremely dangerous conditions would result if low-speed, land access traffic were permitted on these roads. Conversely, local roadways are developed with the primary objective to provide convenient access to the adjacent land areas.

Roadway function establishes the type of transportation service that is provided. Directly, related to the type of transportation service provided is the degree of access control. Increasing control of access allows traffic to travel in a more uniform manner, allowing design speeds to be increased. Table 6 shows the relationship between categories, functions and access control.

Four basic functional categories are used to classify roadways (see Tables 6 & 7). These categories are defined as:

- 1) Major Arterial Streets
- 2) Arterial Streets
- 3) Collector Streets
- 4) Local Streets

These groups make up the hierarchy of functional classes which relate directly to the different levels of travel demand from the public. Travel demand is easily identified according to the types and lengths of trips which individuals attempt to make.

Table 6 - Functional Classification Definitions/Principles

| CATEGORY | PRIMARY FUNCTION | DEGREE OF PRIVATE ACCESS CONTROL |
|---|--|---|
| Major Arterial Streets Freeways Expressways Major at grade arterial streets. | Mobility | Total Very High Very High |
| Arterial Streets | Mobility | High |
| Collector Streets | Mobility/Accessibility Transition | High |
| Local Streets | Accessibility | Minimal |

Major Arterial Streets

The Major Arterial System is a system of streets and highways which can be identified as unusually significant to the region in which it lies in terms of the nature and composition of the travel which it serves.

The Major Arterial System should serve the major centers of activity of a highly urbanized area, the highest traffic volume corridors, and the longest trip desires, and should carry a high proportion of the total urban travel on a minimum of mileage.

The Major Arterial System should carry the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city. In addition, significant intra-area travel such as between central business districts and outlying residential areas, between major inner-city communities or between major suburban centers, should be served by this class of facilities.

Due to the nature of the travel served by the Major Arterial System, almost all fully and partially controlled access facilities will be part of this functional class. however, this system is not restricted to controlled access routes. Design types which are often included under the Major Arterial System are

- 1) Interstate Highways
- 2) Freeways and Expressways
- 3) Partially Controlled Access Roadways

The spacing of urban Major Arterials will be closely related to the trip end density characteristics of particular portions of the urban area. While a firm spacing rule cannot be established that is applicable in all circumstances, the spacing of Major Arterials may vary from less than one mile in the highly developed central business area, to five miles or more in the sparsely developed fringes.

For Major Arterials, the concept of service to abutting land is subordinate to the provision of travel service to major traffic movements. it should be noted that only partially controlled access facilities are capable of providing any direct access to land, and such service should be purely incidental to the

primary functional responsibility of this classification.

Arterial Streets

the Arterial Street System should interconnect and augment the Major Arterial Street System to provide service trips of moderate length and somewhat lower level of travel mobility. This system also distributes travel to geographic areas smaller than those identified in the Major Arterial Street System.

The Arterial System includes facilities that place more emphasis on land access than the higher system, and offers a lower level of traffic mobility. Such facilities provide intra community continuity, but ideally should not penetrate identifiable neighborhoods.

The spacing of Arterial Streets may vary from 1/8 to 1/2 mile in the Central Business District (CBD) but not more than one mile in suburban areas. these streets are usually located along the section line grid system.

Collector Streets

The Collector Street System differs from the Arterial Street System in that the facilities on the Collector system may penetrate neighborhoods, distributing trips from the arterial system through the area to the ultimate destination, which may be on a local or collector street. In some cases, due to the design of the overall street system, a minor amount of through traffic may be carried on some collector streets. The Collector Street System provides both land access service and local traffic movement within residential neighborhoods, commercial and industrial areas.

Local Streets

The Local Street System comprises all facilities that are not included within the higher classification systems. This system provides direct access to abutting land. Access to the higher roadway systems with through traffic movement is deliberately discouraged.

Table 7 - Functional Classification Characteristics

| CHARACTERISTICS | MAJOR ARTERIAL STREETS | ARTERIAL STREETS | COLLECTOR STREETS | LOCAL STREETS |
|--------------------------------|---|--|---|--|
| Service Performed | Traffic movement, no direct land access. | Traffic movement, minimal land access. | Land access and some traffic movement. | Direct land access. |
| Typical Trip Lengths | Interstate and regional. | Sub-regional and inter-community. | Within communities community. | Within neighborhoods and business centers. |
| Spacing | 2-4 Miles | 1 Mile | 1/4 - 1/2 Mile | Every Block |
| Continuity | Totally interconnected over the entire region. | Interconnected with principal arterials and continuous within sub regions. | Interconnected with major and minor arterials and usually continuous within neighborhoods. | No continuity required. |
| Access type and spacing | Interchanges at 1 mile (freeway or expressway) and major signalized intersections (expressway only) as warranted. | Signalized intersections at consistent spacing, e.g. 1/2 mile (1/4 if warranted). Private lot access restricted. | Signalized and stop sign controlled intersections at 1/8 mile. Some private lot access restriction. | Stop sign controlled intersections. Unrestricted private lot access. |

Future Needs

During the ten years from 1980 to 1990 the Beaver City population increased by a total of 206 individuals or 11.5 % of the total population. During the ten year period between 1990 and 2000, the estimated increase represents 12.4 % or 247 persons. This anticipated increase, along with a similar increase of 10.7% between 2000 and 2010, represents a significant change in the total population for the city.

The Beaver City population during the 1990 Census of Population is listed as 1,998. During the next twenty year period, the population is expected to increase by 487 persons to 2,485 residents. This increase represents a 24.4% change. 85% of the city's housing stock is comprised of single family units with the remaining 15% in multi family units or trailer parks.

The future added resident ADT(average daily trips) on the roadways of Beaver will be in the neighborhood of 1,522 by the year 2010. In addition to this resident traffic, continued traffic volumes to Elk Meadows and other attractions are expected to continue. Average daily volumes on SR 153 east from Beaver, toward Elk Meadows, increased from 530 in 1989 to 1,630 in 1991. Traffic volumes measured at the junction of SR 153 and SR 160 inside Beaver City were measured at 2,755 in 1991. The projected increase of population in Beaver City, as well as continued traffic flow with destinations east of town, impact the city and it's residents.

No data specific to the number of accidents within the Beaver City boundaries is available. Beaver County data will be used to show the amount and intensity of traffic accidents in the area. The total number of traffic accidents on Beaver County roadways in 1992 is listed at 211. The number of injury

accidents was 44 for the same period with fatal accidents totaling 5.

The goals as stated in this plan are intended to address the needs of the community through the designation of a street system and specific means to alleviate possible future traffic problems. The Circulation Map on page 40 indicates the designation of streets and suggested ROW sections for each type of designation.

Goals and Policies

Movement of Goods and Services

GOAL 1 To provide a circulation system to move people and goods safely and efficiently throughout Beaver City and the general planning area.

- Policies**
- 1.1 Preserve the quality of residential neighborhoods by discouraging the flow of truck and through traffic in these areas consistent with circulation and emergency needs.
 - 1.2 Encourage consistent through street name and numbers.
 - 1.3 Work cooperatively with State agencies to integrate the city's circulation system with that of the surrounding region.
 - 1.4 Maximize and improve the operating efficiency and safety of the existing roadway system.
 - 1.5 Limit the number of intersections and driveways on all major roadways to promote a safe, efficient and steady flow of traffic.
 - 1.6 Develop and maintain an appropriate truck route program which will accommodate the needs of the commercial and industrial uses within the city, and the general planning area; but will also provide for the protection and preservation of the city's circulation system and residential areas. Avoid establishing truck routes in areas which contain natural, scenic or other resources.
 - 1.7 Adopt a program of street and highway landscaping (street trees) to enhance the appearance of the city's circulation system.
 - 1.8 Require access to higher density land uses and commercial developments from major, secondary and limited secondary roadways, and not from low density residential neighborhoods.
 - 1.9 Establish hillside street standards which are sensitive to topographical constraints, necessary grade separations and other special needs.
 - 1.10 Encourage curvilinear street designs in hillside areas to contour to the topography and to create a more pleasant street environment.
 - 1.11 Seek alternative funding opportunities to provide adequate transportation and circulation facilities, i.e. maintenance equipment and tree planting.
 - 1.12 Maximize use of all major, secondary and limited secondary roadways while minimizing use of all collectors and local streets. Protect residential neighborhoods from intrusion of undesirable through traffic.
 - 1.13 Develop design standards for roadway and intersection improvements to safely and efficiently accommodate existing and projected traffic patterns and circula-

tion.

- 1.14 Establish roadway alignments and require appropriate dedication of right-of-way for all major and secondary highways.
- 1.15 Encourage a "Safe Routes To School" program.
- 1.16 Where alignments are known, the preservation/acquisition of corridor rights-of-way should be immediately established or obtained.

Collector Streets

GOAL 2 Identify, protect and develop arterial and collector streets for adequate traffic flow.

- Policies**
- 2.1 Give top priority in relationship to maintenance, traffic enforcement and expansion to arterial and collector streets.
 - 2.2 To ensure proper circulation, these roads should be periodically reviewed regarding level of service.
 - 2.3 Monitor traffic patterns to identify the development of future collector road needs.
 - 2.4 Investigate the location of parallel collector roads for future needs.

Transportation Alternatives

GOAL 3 Reduce excessive speeding within the city limits by making traffic control devices more effective.

- Policies**
- 3.1 Adjust existing signs for better viability.
 - 3.2 Identify new locations for traffic control devices.
 - 3.3 Install "reduced speed ahead" signs.
 - 3.5 Paint pedestrian cross walks in sensitive areas, i.e. school, churches, etc.

Parking Facilities

GOAL 5 To provide for, and ensure, an adequate supply of off-street private and public parking to meet the needs of local residents and visitors to the city and the planning area.

- Policies**
- 5.1 Adopt regulations which specify minimum parking requirements for various types of land uses. Periodically review and update these standards as commuting patterns, vehicle sizes and land uses change over time.
 - 5.2 Consider providing public parking resources in response to the demand for

such facilities, (including park-and-ride facilities), through development exactions, special assessment districts or other appropriate funding mechanisms.

- 5.3** Adopt regulations to require developers to screen and/or buffer large parking areas from public view through the use of landscape setbacks, earth berms and hedge screens, (to headlight level), and trees and landscaping in parking areas.
- 5.6** Encourage enclosed bicycle lockers at major facilities.
- 5.7** Consider shared parking between adjacent users.

Regional System Impacts

GOAL 6 Periodically review the need for a regional transportation system.

Policies 6.1 If needed, encourage intergovernmental coordination and cooperation among all agencies and levels of government for the planning, management and financing, and implementation of transportation system improvements.

Implementation of the Circulation Element

The primary tools with which the city should undertake to implement the circulation element of the plan should include:

- ** Standards for right-of-way dedication and acquisition
- ** Roadway improvement standards and programs
- ** A comprehensive zoning ordinance including standards for parking and access
- ** Development agreements
- ** Capital improvement programs
- ** Transportation facility improvement financing programs

Circulation Map

REMOVE BLANK SHEET

AND

INSERT MAP

Housing Element

Supplemental Goals and Plans Related to the Affordable Housing Needs of Beaver City

In 1996 the Utah State Legislature past H.B. 295 which directed that each municipality adopt a plan for “moderate income housing” as part of the jurisdiction’s General Plan; and to afford a reasonable opportunity for a variety of housing to meet the needs of people desiring to live there.

The Legislature defines “Moderate Income Housing” as “housing occupied or reserved for occupancy by households with a gross household income equal to or less than 80% of the median gross income (of the area) for households of the same size”

The Legislature also defines “Plan for Moderate Income Housing” or “Plan” as being a written document adopted by the legislative body that includes, but is not limited to:

1. An estimate of the existing supply of moderate income housing located within the jurisdiction;
2. An estimate of the need for moderate income housing for the new five years
3. A survey of total residential zoning
4. An evaluation of how existing zoning densities affect opportunities for moderate income housing
5. A description of the jurisdiction’s program to encourage an adequate supply of moderate income housing

As directed by the Legislature, Beaver City has completed a “needs assessment” using the modeling software supplied by the State; figures obtained from the 1990 census, the State Office of Budget and Planning, the Five County Association of Governments, and local figures collected from those involved in housing within Beaver City.

Beaver City adopted a new General Plan in 1993 that contained a “Housing Element”. This Element is being prefaced by this “Supplemental Amendment” section in the General Plan. The existing “Housing Element” recognizes the need for “affordable housing” and is therefore still relevant to the housing issues.

DATA

Beaver City currently has 1524 acres zoned for residential, rural residential or multi-family residential. Of this area, approximately 700 acres is developed.

It is estimated that there are currently 90-100 vacant building sites within the “old” part of the City, and 50 sites available in new subdivisions. It is believed that there exists adequate property, both currently developed and raw ground, to allow many development options and to facilitate grow for many years to come.

INFRASTRUCTURE

Beaver has Water Rights and a developed water system to provide for future growth.

The sanitary sewer system needs addition lagoons. The lagoons were full during the fall of this year (1998) and Beaver City will be looking at solutions to the problem and the future growth in the next few months.

NEEDS ASSESSMENT

The results of the affordable housing analysis are:

| Beaver City Affordable Housing Needs Analysis | | | |
|--|--------------------|----------|----------|
| <i>Estimated Affordable Housing Supply (year end 1996)</i> | | | |
| Affordable Housing Category | 80% | 50% | 30% |
| | % of Median Income | | |
| Household Income | \$29,300 | \$18,313 | \$10,988 |
| Maximum Purchase Price | \$1,500 | \$900 | \$500 |
| Maximum Monthly Rent | \$605 | \$335 | \$145 |
| Current Supply (year end 1996) | | | |
| 1990 | (27) | (25) | (74) |
| Net Change - 1990 to 1996 | 4 | 10 | (20) |
| Current Supply | (23) | (15) | (94) |
| Projected Supply (year end 2001) | | | |
| Current Supply | (23) | (15) | (94) |
| New Demand (1997 to 2001) | (61) | (36) | (51) |
| Projected Supply | (84) | (51) | (146) |
| Annual Average | 17 | 10 | 29 |

As the chart shows, Beaver City lacks, and

will lack affordable housing for all three categories identified in the analysis. The analysis shows that Beaver City lacks the following calculated dwellings:

| <i>Current Supply (1996)</i> | <i>2001 Supply</i> |
|--|---|
| <i>80% of median income lacks 23 dwellings</i> | <i>80% of median income lacks a projected 84 dwellings</i> |
| <i>50% of median income lacks 15 dwellings</i> | <i>50% of median income lacks a projected 51 dwellings</i> |
| <i>30% of median income lacks 94 dwellings</i> | <i>30% of median income lacks a projected 146 dwellings</i> |

Having recognized the needs, Beaver City has set the following goals specific to the requirements of H.B. 295, defining and setting goals related to the improvement of “affordable housing stock.” The Goals and Objectives of the Beaver City General Plan, Housing Element need to be reemphasized and

housing needs to be made a priority of the City.

SUPPLEMENTAL GOALS

Goal 1. Zoning and Lot Sizes

A. An evaluation of how existing zoning densities and lot sizes affect the prices of housing; and the consideration of a new minimum lot size amendment to the Zoning Ordinance and re-zoning selected areas or parcels for lower densities and smaller lot sizes.

Goal 2. Flexible and Varied Zoning

A. An evaluation and consideration of amending the Zoning Ordinance to allow cluster development and flag lots.

Goal 3. Housing Authority

A. The restructuring of the “Beaver City Housing Authority” to create a working agency within Beaver City to explore and develop the opportunities for “affording housing”, and to promote economic development to supply better paying jobs which better support the costs of housing.

Goal 4. Funding Alternatives

A. Active utilization of State and federal funds; tax incentives; Utah Housing Finance Agency programs; and programs administered by the Utah Department of Community and Economic Development.

Goal 5. Property Value Preservation

A. Insure that real property values are preserved; and educate the public to the fact that affordable housing can be provided without hurting property values.

One of the major goals the people of Beaver City have stated is that Beaver City should have housing available for a variety of personalities and personal housing needs. In society today, a variety in housing opportunities is becoming more and more important as the structure of the typical household changes and as economic realities become more challenging.

The total number of households in Beaver City, according to the 1990 Census, was 657. The median household income was listed as \$20,893. Future housing requirements for Beaver City can be established by using this and other information as shown in table 8 below (data for Beaver City) and Table 9 on page 45 (data for Beaver County).

Table 8 - Beaver City Housing Data

| MARKET ANALYSIS | |
|--|-----------------|
| Beaver City - Analysis Parameters (Conventional Loan) | |
| Total Households | 657 |
| Median Household Income | \$20,893 |
| Mean Housing Cost | \$55,000 |
| Length of Mortgage | 30 years |

| | |
|--|--|
| Down Payment Percentage | 10 % |
| Annual Percentage Rate | 7.5 % |
| Housing Debt Ratio | 29 % |
| Average Monthly Personal Debt | \$275 |
| Median Mortgage (Census) | 460 |
| Calculated Median Mortgage (based on median household income) | \$504.91 - \$275 (personal debt = \$229.91) |
| Calculated Median Mortgage (based on mean housing costs) | \$346.11 |
| Very Low Income (<50%) | < \$10,446 |
| Low Income (50% - 80%) | \$10,447 - \$16,714 |
| Moderate Income (81% - 95%) | \$16,715 - \$19,848 |

The above data indicates that the median household income minus the average monthly personal debt can not support the calculated median mortgage cost. The Census median mortgage data, versus income difference demonstrates that many are spending their extra income on housing. According to 1993 estimates, the median cost of a home in Beaver City is \$61,000. Taking the 1993 estimate for average housing cost and using the same format for analysis as listed above, the average calculated mortgage based on mean unit housing cost is \$383.87. This calculation also illustrates that a median income household with average monthly personal debt can not support the mean housing cost.

Beaver County Data

Employment/Economics Summary for Beaver County

The early settlers of Beaver County were cattle men that came from Parowan in 1852, interested in grazing the Beaver Valley. They built log cabins along the Beaver River and began cultivating the area. In 1852, lead was discovered and the settlers attempted to produce bullets. An element in the lead made the production of bullets difficult. This element turned out to be silver. The discovery of silver led to an economic boom in Beaver County. Prospectors began scouring the countryside for new mineral deposits and by 1920, there were 15 separate mining districts in the county. The railroad was later extended into Milford, which was done primarily to facilitate the transportation of ore to Salt Lake City.

Cattle were shipped by the Union Pacific Railroad from Milford to various markets throughout the west. By the turn of the century, Milford had become the largest cattle shipping center west of Omaha, Nebraska.

Agriculture and transportation continue as important sources of economic activity, but mining has been replaced by recreation and tourism. The Elk Meadows Ski Resort and the county's excellent fishing and hunting attract many out-of-state visitors. Minersville Reservoir is another recreational area that attracts visitors to Beaver County. Many private and public agencies are now in the process of improving the reservoir's water quality. The State of Utah intends to enhance the Minersville Reservoir park.

Over the past ten years Beaver County has seen a moderate growth of 8.84 percent. According to projections published by the Utah Office of Planning and Budget in 1992, Beaver County can expect to see a modest increase in population over the next 30 years. In 1990, the total population in Beaver County was 4,765. By 2020, the population is projected to be 6,500. This is a 36.41 percent increase. The average annual percent change in population during the period of 1980 to 2020 is projected to be 1.1%. This compares to an 1.7 percent increase for the State of Utah during this same period. A moderate increase in the construction of housing in Beaver County is necessary to meet the needs of the population growth.

The number of multiple-family units in Beaver County has increased by more than five percent during the past ten years. However, duplexes or apartment units have not been constructed in Beaver County since 1989. The use of manufactured homes has increased since 1980 and this trend is expected to continue in slow developing Utah areas in the future. From 1988 to the 1st quarter of 1993 permits have been issued for 61 single family homes or manufactured homes. Only four permits for apartment units were issued during this time period.

In 1991 the total construction value was \$2,156,700. In 1992, Beaver County's total construction value was \$2,228,200, a 3.3 percent increase from 1991. Gross taxable retail sales, services and business equipment purchases totaled \$30,013,775 in 1992.

Limited employment opportunities in Beaver County cause substantial out-migration of residents. The population loss and the unsatisfactory housing are a direct result of the current economy, which can be remedied if employment and income improve.

Over the next 30 years a decrease in people ages 40-49 is expected. This age group drives much of the economy. The median age in Beaver County is expected to increase from 31 in 1990 to 33 in 2020. The main reason for this increase is that many retired families are moving into Beaver County. Policy makers will need to combat this problem by providing employment, job training, affordable housing, family service education and health care.

The majority of jobs in the county consist of service and trade business. These jobs provide income, but at wages which make it difficult for families to be self-supporting and obtain adequate housing.

Non-agricultural employment increased within the county by 9.45 percent from 1990 to 1991. In 1991, the majority of non-agricultural employment is found in the government sector, which accounts for 35 percent of the total. This is followed by retail trade at 28.1 percent, services at 13.4 percent and transportation, communications and public utilities (T.C.P.U) at 11.2 percent. Construction, mining, manufacturing and finance, insurance, real estate (F.I.R.E.) make up the remaining 12.3 percent. The trend over the past few years has been growth in the manufacturing and government sectors, while mining, construction and transportation, communications, public utilities (T.C.P.U.) have declined. The labor force in 1990 was 1,938 compared to 1,986 in 1991. This is a 2.47 percent increase.

Agricultural production has been a reliable resource in Beaver County. In spite of a relatively short growing season, both grazing and croplands are very productive. Hog production farms and a processing plant are expected to be established in the near future between Minersville and Milford. If this project is completed, it will create approximately 1,500 jobs, 400 alone for the processing plant. This will increase the housing stock, services, infrastructure, recreation, etc. in Beaver County. However, many of these jobs will not produce high paying wages and therefore jurisdictions will have to encourage low income housing. Statistics from Utah Job Service indicate that an additional 1.5 to 2.4 secondary jobs will also be generated for every new primary position created. Using these figures, the hog production project can generate roughly 4,000 new employment opportunities in the region. The hog project will strongly affect the surrounding area over a five to six year period.

Additional development planning, policies and services must be adopted immediately.

Other new mineral projects and the increasing size of the Blundell Geothermal facility could also affect the population size of Beaver County. Beaver County needs to be prepared for the up coming growth. It is anticipated that over 700 new homes will be constructed if the above businesses establish themselves in the county. Many of these homes will need to be affordable for very-low, low, and moderate income people.

The areas that seem to offer the most promise of providing new employment are recreation, tourism, agriculture, government and light manufacturing. Due to Beaver City's proximity to I-70 and I-80, light manufacturing and product distribution are future possibilities.

The unsatisfactory economic conditions that result in unemployment and underemployment are the basis of most of the problems in Beaver County. These will be best resolved through long-term economic planning and coordination.

| 25 - 34 AGE CATEGORY (Typical First-Time Buyer Age Category) | |
|---|--------------------------------------|
| MINIMUM INCOME REQUIREMENT | % INCOME MINIMUMS OF \$25,000 |
| \$25,713.95 | 30% |
| *\$27,277.21 | **28.18% |

*** Based on 1993 median housing costs.**

**** Minimum Incomes of \$27,000**

The above table indicates that in order for the typical first-time home buyer to purchase the average priced home in Beaver City, the household income must be at least \$25,713.95. Since the Census income breakdowns do not specify to the point needed, the nearest income category was used. Review of this information illustrates that homes purchased with personal debt is low, relative to employment and income levels with 30 percent of the typical first-time home buyers being able to purchase mean housing. In 1993 only 28.18 percent of the typical first-time home buyers could purchase the average home in Beaver City. However, many homes in Beaver City are in the \$30,000 to \$40,000 range and are affordable. Housing diversity is still needed. As economic possibilities improve, the condition of the housing stock and overall housing diversity should improve.

The development of affordable housing has been arduous. Slow economic growth, low wages and financing barriers add to the problem, especially for younger households who typically are first-time home buyers.

Primary housing problems in the Beaver County appear to be

1. Large numbers of units considered unfit for occupancy (county-wide).
2. Lack of adequate rental units.
3. The inability of people to pay high enough rent to make construction of additional units profitable for land owners or developers. This is slowly changing because low vacancy rates and economic growth have spurred the demand for apartments.
4. Current zoning philosophies make it difficult for the development of multi-unit complexes and other typical low/moderate income housing.

5. Single-wide manufactured homes are highly relied upon as low income housing.

Educating elected officials and the public as to the benefits of well planned and diversified low/moderate housing will improve housing in Beaver County.

Based on current population estimates from Utah Department of Planning and Budget, Beaver County's new housing starts must focus on affordable multi-family development in an effort to meet the current housing need as well as the predicted 30 year population growth. In an effort to identify Beaver County's target in terms of housing types with projected population growth, Beaver County's total population can be separated into three general categories: (1) single-family or one-unit detached units; (2) single-family or one-unit attached units; and (3) multi-family or multiple units.

| Age Grouping According to Housing Type | | |
|---|--------------------------|--------------------------|
| Category 1 Groups | Category 2 Groups | Category 3 Groups |
| 0-17, 40-74 | 30-39, 75+ | 18-29 |

The population by age group can then be divided by the Census estimate of persons per household: 3.38 for categories 1 and 2, 2.1 for category 3, thereby estimating build-out needs by the year 2020. The estimated housing needs are as follows:

Table 9 - Beaver County Housing Data

| Beaver County | CATEGORY 1 | CATEGORY 2 | CATEGORY 3 |
|---------------------------------------|-------------------|-------------------|-------------------|
| CURRENT LEVELS OF UNITS (1990) | 1,980 | 13 | 207 |
| PROJECTED UNITS NEEDED BY 2020 | 0 | 412 | 453 |
| PERCENT CHANGE | 0 % | 3069.23% | 118.8% |
| ESTIMATED UNITS NEEDED BY 2020 | 0 | 399 | 246 |

Beaver County is 95 housing units above build out for the projected population in 2020. However, this does not consider many older, vacant, single family detached units that are dilapidated and can not be restored. Again, if the new large businesses establish themselves, about 700 new homes will need to be erected. Single family detached units and manufactured homes account for 90 percent of the housing units in Beaver County. The main reason is that a moderate size single family detached home is offered at a reasonable price to the consumer in Beaver County. Many people who want to live in Beaver County usually have no other choice than to own or rent these types of homes. Single-family attached units are virtually not on the market in Beaver County (see Table 10) and many more of these type of homes are needed. As noted, 246 multi-family units may be needed by 2020.

**Table 10 - Number of Permit-Authorized Dwelling Units
by Type of Structure⁹
1991 - 1st Quarter 1993**

| | Single-Family (includes manufactured homes) | Duplex | Apt. Unit | Total Units | % Single Family |
|--------------------|--|---------------|------------------|--------------------|----------------------------|
| Beaver City | 6 | 0 | 0 | 6 | 100% |

As depicted, very few homes are being built in Beaver City. Beaver City needs additional duplex and apartment units.

Housing Needs

Beaver County needs a system by which improvements can be made on the older, larger homes within the housing stock. Education and funding for home maintenance may assist in reducing the increasing levels of deterioration that the older housing stock of Beaver County is experiencing. Rental Rehabilitation Grants and HOME funds can satisfy part of this need.

Beaver County is deficient in rental units for families and single-parent households. Those individuals working service industry jobs or as farm-hands with families need rental homes, especially those with more than two bedrooms. Average rental unit vacancies are two units per week. Often people call the Beaver Press asking for information on rental unit availability. This is evidence that there is a lack of rental units in Beaver County.

More subsidized senior-citizen units and nursing facilities for the frail elderly are needed. Many are finding that they must place their elderly family members who require medically supervised nursing care in Salt Lake City where beds and facilities are more available.

Beaver County currently offers no services for the severe mentally ill, disabled or abused. These individuals are referred to facilities and services offered in Cedar City. In terms of emergency services for the mentally ill, substance abuse victims, runaways and those that are spouse abused. Beaver County needs to address the possibility of providing facilities and services to assist these individuals. Emergency shelters, particularly for the abused, are essential to minimize the disruption that removal from their community and job causes.

In order for these improvements in housing assistance and availability to occur, increased education defining the community benefit of providing low-income housing, community cooperation and incentives are required.

Different ways of educating the public and local officials on housing issues can be done by site visits, the media, proper neighborhood planning and design methods, and mixed-use developments.

Cooperative and community housing assistance is a must, including the development of financial assistance, expansion of programs through the housing authority, better information and outreach efforts, and the development of coordinated housing efforts at a local, state, and regional level.

⁹Bureau of Business and Economic Research; Vol. 34, No. 3; Vol. 35, No.4; Vol. 36, No. 1

Implementation of incentives by community leaders to produce affordable housing will assist in the development of needed housing. The Goals, Policies and Potential Programs section of the CHAS identifies some of the incentives that can be used.

Homeless

Facilities

Beaver County's current homeless facilities consist of one-night transient accommodations at local motels in Milford and Beaver. After a one night stay, these homeless are referred to services on the Wasatch Front or Cedar City. Milford provides this service due to its proximity to the railroad which is frequented by the homeless. Both Beaver and Milford have Care and Shares that provide food boxes and commodities to those in need.

Needs

It is very difficult to estimate the homeless population because there is no reliable nationwide count of the homeless; there is a high turnover of this population; it is difficult to count and locate the homeless; and definitions of homelessness vary greatly.

The Department of Housing and Urban Development uses two ratio methods to estimate the homeless population. The first method is a standard ratio of 25 homeless persons per 10,000 of the general population. Even HUD admits that this ratio is a little high in determining the homeless count. The second approach is the assumption that larger metropolitan areas have a greater number of homeless than rural areas. For rural areas of population up to 250,000, a 6.5 homeless count to every 10,000 population was assigned, compared to 13 homeless per 10,000 in areas of population greater than one million. These methods are inconsistent and it is difficult to approximate the general number of homeless in Beaver County. This information is based upon "Utah's 1992 Homeless Count", Division of Community Development Services, Department of Community and Economic Development, December 1992.

Currently, approximately twelve homeless persons exist in Beaver County at any given time. Homelessness is expected to increase due to the transportation avenues that transverse Beaver County. By the year 2020 the homeless population will be approximately 16 or more. Educating the public and local officials regarding homelessness will assist in addressing the homeless needs. With increasing homeless people in this region, Beaver County will have a need in the near future for a homeless shelter as well as transitional housing.

Supporting Services

The Executive Director of the Beaver County Housing Authority is also the administrator of the Beaver County Hospital. There is housing assistance in Beaver County through the Housing Authority. The only subsidized units provided are the Hilltop Care apartments. This is an 18 unit complex for low income senior citizens. The apartments are currently full with 14 families on the

waiting list as of the spring of 1993. The Beaver County Housing Authority would like to construct an additional ten apartment units.

Daycare and counseling services are available at Southwest Utah Mental Health in Beaver City. This center is for out patients only. If more help is needed the clients are sent to the Horizon Center in Cedar City where beds and additional help are offered for up to 90 days. One long term elderly care facility is located at Beaver Valley Hospital with 28 beds available.

The Five County Association of Governments administers the regional Weatherization Program. The purpose of the program is to provide energy cost reduction assistance to low income households. The program is funded by the Department of Energy and Exxon. The regional weatherization office indicates that nine homes were serviced at a cost of \$13,141 in fiscal year 1991-1992. Two homes were serviced in fiscal year 1992-1993 at a cost of \$3,388.88.

Goals and Policies

Development of New Housing

GOAL 1: To provide opportunities for the production of a range of new housing in the planning area to meet the needs of all income groups.

- Policies:**
- 1.1 Implement the land use plan which provides opportunities for the development of a wide variety of new housing types within the city.
 - 1.2 Evaluate development proposals within the unincorporated portions of the planning area to ensure that development is consistent with the city's land use plan.
 - 1.3 Continue to monitor residential development capacity as provided under the Beaver City General Plan to ensure that these plans will enable the planning area to meet the housing needs of the future population of Beaver City.
 - 1.4 Review and support, as appropriate, programs to increase the supply of housing throughout the region. Give full consideration to all other elements of the General Plan.

- Programs:**
- 1.a **Alternative Development Standards**
Use planned unit development techniques, such as clustering and use mixing, while considering environmental, market infrastructure and other factors to permit alternative housing design where such projects result in attractive, desirable housing types, including affordable housing.
 - 1.b **Existing Needs Prioritization**
Prioritized housing projects which fulfill the existing needs of the city's various communities.
 - 1.c **Manufactured Housing**
Permit manufactured housing on lots located in single-family zones with same development standards as the specific single-family zone.
 - 1.d **Emergency Housing**
Permit the location and operation of emergency shelters in residential, industrial, or commercial zones, with an approved conditional use permit.

Availability of Land for Residential Development

GOAL 2: To identify adequate housing sites appropriately zoned with development standards, and public services and utilities needed to facilitate residential development.

Policies: 2.1 Periodically review and revise planning, zoning, and development regulations to ensure an adequate supply for a variety of housing types and programs.

Affordable Housing

GOAL 3: To designate sites suitable for a variety of housing types for all income levels and to promote the development and provision of affordable and proportionally priced and sized homes to meet the needs of all community residents, including low and moderate income, large families, handicapped, families with female heads of households, and the elderly.

Policies: 3.1 Periodically review development standards contained in the Beaver City Zoning Ordinance to ensure consistency between the ordinance and the General Plan, including provisions to facilitate affordable housing without diminishing quality.

3.2 Seek development which facilitates the efficient use of infrastructure, contributes to solutions of existing deficiencies, and anticipates and facilitates the orderly provision of future development and infrastructure consistent with this General Plan.

Programs: 3.a **Increasing Affordable Programs**
Promote programs such as low cost loans, equity sharing, density bonuses, and deed restrictions that increase the amount and variety of affordable housing and retain housing affordability for successive buyers and renters.

3.b **State and Federal Programs**
Participate in state and federal housing assistance programs such as Section 8.

3.c **Public Facilities Funding**
Utilize public, redevelopment and other funds to upgrade and construct drainage, sidewalk, street lights, public transit, and landscaping improvements.

3.d **Site Accessibility**
Include provisions for subdivision to be site accessible to the disabled. Site accessibility includes curb cuts, and consider wider private sidewalks, ramps instead of or in addition to steps, and wider entry doors with level thresholds to permit wheelchair access, especially in special types of housing such as senior or handicapped housing.

Maintenance of Existing Affordable Housing

GOAL 4: To maintain and improve the condition of the existing housing stock, particularly the affordable portion of the housing stock, where feasible.

Policies: 4.1 Promote the maintenance of existing affordable housing throughout the city,

including dwellings occupied by households utilizing Section 8 programs and other governmental and/or non-profit housing assistance programs.

- 4.2 Utilize a city code enforcement program to bring substandard units into compliance with city codes and to improve overall housing conditions.
- 4.3 Encourage residential rehabilitation programs which provide financial and technical assistance to lower income property owners to enable correction of housing deficiencies which could not otherwise be undertaken.
- 4.4 Encourage the retention of existing single-family neighborhoods which are economically and physically sound.
- 4.5 Encourage the retention and maintenance of mobile home parks within the city, where consistent with standards for a suitable living environment and compatible with surrounding land uses.

Programs:

- 4.a **Property Maintenance Ordinance**
Require by ordinance property owners to consistently maintain their property in a clean, safe, and well kept condition. The ordinance should include reasonable and appropriate warning and enforcement procedures, including the power to issue citations and correct problems and bill the owner later.
- 4.b **Code Enforcement**
Enforce compliance with the city's zoning, fire, health and safety, and building codes. Implement enforcement with code enforcement officers.
- 4.c **Rehabilitation Loans**
Work with banking institutions to establish and implement a low-interest loan program for lower income home owners enabling them to make needed home repairs. The program should focus on senior citizens, the disabled, and residents of the revitalization target areas.
- 4.d **Weatherization**
Utilize the services available through the State weatherization program to correct emergency health and safety problems (i.e., leaking roofs, broken hot water heater, heating system repair, broken windows or doors).
- 4.e **Rehabilitation Program Targeting**
Evaluate the targeting of rehabilitation programs to ensure that all areas in need of assistance are being served. Funding can also be targeted for these areas. Such funds to be utilized would include the Community Development Block Grant (CDBG).
- 4.f **Self Help Programs**
In addition to loans and grant programs, encourage self help efforts to stretch funding while increasing job training skills.

Meeting Housing Needs

GOAL 5: To address and remove governmental constraints on the maintenance, improvement, and development of housing where appropriate and legally possible.

Policies: 5.1 Promote reasonable processing time and fees, including consideration of a prioritized schedule for non-profit affordable housing and other special needs projects.

Programs: 5.a **Ordinance, Assessment, and Fee Review**
Review the impact of proposed ordinances, assessments and fees, as appropriate, on housing affordability and availability.

5.b **Balance Employment Opportunities with Housing Supply**
Balance the existing and projected supply of housing with city employment opportunities to ensure that people who live in the city have a reasonable opportunity to work there and do not have to commute long distances and contribute to regional traffic congestion and air pollution. Investigate programs which balance the employment opportunities with housing, such as phasing housing development with the development of infrastructure, offices, industrial, commercial and retail uses.

Equal Housing Opportunities

GOAL 6: To promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, age, physical handicap, or color.

Policies: 6.1 Promote safe and secure housing and neighborhoods, and encourage housing design which serves to deter crime.

6.2 Cooperate with governmental and nonprofit agencies and citizen groups that monitor housing discrimination complaints and practices.

6.3 Affirm a positive action posture which will assure that unrestricted access to housing is available to all segments of the community.

Programs: 6.a **Fair Housing Education and Outreach**
Support education, counseling, and legal referral efforts for residents who have experienced discrimination in violation of state and federal fair housing laws.

6.b **Information**
Continue to advertise and conduct public workshops, study sessions, and hearings on housing policy. Advertise housing programs widely and maintain a list of contacts for other agencies providing housing services.

Development in Natural Resource Areas

GOAL 7: To provide new housing opportunities which are sensitive to social, aesthetic, and environmental needs.

Policies: 7.1 Restrict housing development in areas containing important natural resources

consistent with other goals and policies pertaining to natural resource areas.

- 7.2 Encourage clustering or grouping of structures within areas containing important natural resources in order to preserve those resources.
- 7.3 Ensure the variety and visual appeal of residential development through project specific design review.

Programs: 7.a **Site Design Features**
Implement a revised zoning ordinance which provides for a variety of site design features so that the built environment is more compatible with the natural environment.

Childcare

GOAL 8: To encourage the development of affordable and quality daycare for the children of Beaver City.

- Policies:**
- 8.1 Work with the private and public sources of childcare to monitor and evaluate child care needs and develop policy responses to these needs.
 - 8.2 Evaluate the feasibility of including childcare uses and homes in the zoning or conditional use permit ordinance by right in any zone in which they are needed.
 - 8.3 Support the establishment of after-school parks and recreation programs that accommodate elementary and junior high children.
 - 8.4 Facilitate the childcare regulatory process by working with the state to develop a system in which the licensing and inspection and the approvals for local health, fire department and building safety can be coordinated in a reasonable amount of time.

Implementation of the Housing Element

Tools available to Beaver City in the implementation of the Housing Element of the General Plan include:

- * Zoning Ordinance
- * Comprehensive Housing Affordability Strategy
- * Weatherization Program
- * Home Program
- * Beaver County Housing Authority

Safety Element

Soils¹⁰

The area currently within the city limits and the area around the city which is slated for possible annexation contains a variety of soil types and conditions (see map page 64). The general classification for these soils falls into 12 categories and twenty-three sub categories. Properties, including drainage quality, slope and structural make up, of the soils and how those soils can be used is vital in the planning process. Soils and their properties are an important factor in determining the proper location of specific land uses and buildings. For example, many communities are restricting development in hillside areas which may be subject to landslides or in areas which may be prone to flooding or slow runoff. Specific information regarding each type of soil located within the current city boundaries and also in the areas which may be considered for annexation at some point within the next twenty years, is contained in Appendix H, page 126. The specific information was used in this plan to determine areas which may be marginally safe for residential and other development.

Geologic and Seismic Conditions¹¹

Liquefaction/Subsidence

Liquefaction refers to a phenomenon where the surface soils, generally alluvial soils, become saturated with water. Groundshaking packs the sand grains closer together so that there is less pore space available for the water. This increases the water pressure between the sand grains within the alluvium. These soils, therefore, become very wet and mobile causing foundations of structures to move, leading to varying degrees of structural damage. Generally, this phenomenon occurs only below the water table; however, after liquefaction has developed, it can move upward. Liquefaction susceptibility decreases with depth of the water table, and the age, cementation, and compactness of the sediments.

Subsidence may also be a problem in certain areas. Subsidence can be a serious side effect of excessive ground water or petroleum withdrawal where the ground surface sinks.

Seismic Effects

The major cause of structural damage from earthquakes is groundshaking and liquefaction. The amount of ground motion expected at a building site can vary from none to forceful depending upon (1) the distance to the fault, (2) the magnitude of the earthquake, and (3) the local geology. Greater movement can be expected at sites located on poorly consolidated material such as alluvium located near the source of the earthquake (epicenter) or in response to an earthquake of great magnitude. Strong ground shaking can damage large freeway overpasses and unreinforced masonry buildings. It can also trigger a variety of secondary hazards such as liquefaction, landslides, fire, and dam failure.

The city is located in a seismically dynamic region, known as the Intermountain Seismic Belt which extends from northern Arizona through Montana, which has experienced earthquakes since 1953 of 5 or higher on the Richter scale. However, Beaver City lies in an area categorized as moderate when

¹⁰United States Department of Agriculture Soils Conservation Service, United States Department of the Interior Bureau of Land Management, Beaver-Cove Fort Area Soil Survey, May 1976

¹¹Atlas of Utah, Weber State College, Brigham Young University Press, 1981

evaluating ground shaking effects. The State of Utah considers a fault to be active if it has caused soil and strata displacement in the last 11,000 years.

Hillside Stability

Landslides are often associated with earthquakes though there are other factors that may influence the occurrence of landslides. These factors include the slope, the moisture content of the soil, and the composition of the soils and subsurface geology. In addition to an earthquake, heavy rain or the improper grading of a construction site may trigger a landslide.

Flooding Hazards

A small portion within the existing city boundaries, at the southern most city limits which is undeveloped and is quite marshy, lies within a 100 year flood plain (see map page 65). However with annexation as the city anticipates, the flood zone lies roughly in the middle of the overall planning area. Flooding can occur as a result of heavy, prolonged rainfall or a smaller precipitation event in a degraded watershed or drainage system resulting from a recent fire or excessive grading.

Emergency Services

The Beaver City area ambulance/paramedic service consists of 16 volunteer registered EMT's and 2 ambulances. Life-flight service to Salt Lake City medical facilities is available at the Beaver Municipal airport.

Police & Fire Protection

Beaver County is divided into two fire districts. One district encompasses the western part of the county and includes Milford and Minersville, and the other district covers the eastern part of the county and includes Beaver City as far west as the Minersville Reservoir.

The Beaver City Fire District is served by a fire chief and 20 trained volunteers. The department has 2 pumper trucks, one rescue truck, and 2 brush trucks. The department received the Utah IIAU Best Volunteer Fire Department Award for 1986.

The Beaver City Police Department consists of a Chief of Police and two certified police officers. Their primary duties are to enforce laws and to patrol the corporate limits of Beaver. They have also been deputized by the Beaver County Sheriff. Each officer has a patrol vehicle which is fully equipped with police equipment.

The Beaver County jail has six cells and 12 beds. The jail has consistently operated below capacity. Female and juvenile inmates are accommodated at facilities in Cedar City, Richfield, and Provo.

Medical Services

Beaver City sports a range in medical amenities and is home to the Beaver Valley Hospital, a 20 bed facility. Other health care facilities in town include the Beaver Medical Clinic a Southwest Utah Mental Health facility and a 30 bed long term care facility.

The Beaver Medical Clinic is a family practice clinic which is equipped to handle emergencies in addition to routine examinations and immunizations. The Clinic has 2 doctors on staff.

Southwest Utah Mental Health provides outpatient counseling, drug and alcohol assessment and counseling, individual therapy, child play therapy, family counseling, marital counseling and victim counseling. It is also a referral service for the perpetrators of men's anger or violence and sexual abuse. In addition the facility staff provides various programs for adolescent education and awareness. Medical and other public service facilities are shown on the Public Services Map on page 66.

Goals and Policies

Development in Areas Subject to Risk from Natural Hazards

GOAL 1: To minimize damage and hazards resulting from seismic activity, unstable soils, flooding conditions, and other geologic hazards.

- Policies:**
- 1.1** Ensure that all new development has an adequate water supply and water system approved by the Department of Environmental Quality, road widths, and reasonable secondary emergency access to minimize health and safety risks.
 - 1.2** Prepare a comprehensive emergency preparedness plan consistent with General Plan policy and distribute a summary of the plan indicating evacuation routes and shelters to businesses, residences, and public facilities in the planning area.
 - 1.3** Require geotechnical studies for development proposals as appropriate.
 - 1.4** Work with the Utah Geologic Survey to review development proposals located within or adjacent to potentially active faults.
 - 1.5** Assist developers in obtaining necessary technical and policy information regarding seismic hazards and maintain a list of qualified geotechnical consultants.
 - 1.6** Establish and implement necessary safety measures and standards to ensure that development is appropriately restricted in areas where natural hazards are present (seismic, geologic, flooding, fires, etc.), unless such hazards can be mitigated.
 - 1.7** Review the use of seismic design criteria and standards for linear system facilities, including, transmission lines, water and sewage systems, and highways to ensure that they are adequate in protecting the public. Actual weaknesses or limitations within the system should also be determined and mitigated where feasible.
 - 1.8** Require that soils containing toxic or hazardous substances be cleaned up to the satisfaction of the agency having jurisdiction prior to development or redevelopment.
 - 1.9** Review development proposals located in or immediately adjacent to areas of soil instability, liquefaction areas, expansive or collapsible soils, and steep slopes to determine if a significant constraint exists and to determine appropriate land use and structural design.
 - 1.10** Evaluate and review the potential for inundation from dam or levee failure in the event of a major earthquake.
 - 1.11** Promote open space and recreational uses in designated flood zones unless the hazard can be adequately mitigated.

- 1.12 Take an aggressive stance on clean-up efforts of known contaminated areas.
- 1.13 All structures should meet or exceed state required earthquake resistant design standards.
- 1.14 Develop hillside grading standards to minimize the hazards of erosion and slope failure.
- 1.15 Develop a comprehensive storm/water/erosion control plan.

Emergency Preparedness

GOAL 2: To prepare the Beaver City planning area to be self-sufficient in the event of a major emergency.

- Policy:**
- 2.1 Develop an emergency preparedness plan which includes, but is not limited to, the establishment of a volunteer pool to assist in responding to a maximum credible emergency event, and the provision of food and shelter to those in the city (residents and non residents) during the emergency.
 - 2.2 Create a public awareness campaign for every Beaver City family to have provisions for self sufficiency for a period of seventy two (72) hours available at all times.
 - 2.3 Develop a plan in cooperation with hospitals, schools, major businesses, utilities, the Red Cross, churches and other service providers to work together and train in preparation for a coordinated response during a major emergency.
 - 2.4 Work with the school district to develop emergency evacuation plans when such schools are in a dam/flood inundation area.
 - 2.5 Work with special use facilities, especially those containing non-drivers, such as hospitals, convalescent homes, retirement homes, schools and preschools, and other facilities to develop emergency evacuation plans when such facilities are in a dam/flood inundation area.

Interagency Coordination

GOAL 3: To coordinate the Beaver City Emergency Preparedness efforts with other agencies outside the city.

- Policy:**
- 3.1 Coordinate intra-county training and emergency preparedness activities.

Fire Hazards

GOAL 4: To minimize potential damage and hazards resulting from fire.

- Policies:**
- 4.1 Develop an ordinance prohibiting nontreated wood-shake roofs in all new construction and any replacement roofing.

- 4.2 All new development must be served by a water system that meets the fire flow requirements established by the fire department.
- 4.3 Require all public and private roadways to be constructed according to the minimum standards provided for in this General Plan to ensure that vehicular access for emergency vehicles can be maintained.
- 4.4 Promote adequate fire protection service to ensure the maximum safety feasible throughout the city and work to maintain a less than 6 minute response time in the more urbanized portions of the planning area.
- 4.5 Encourage fire-resistant landscaped buffer zones between high risk fire hazard areas and urban development, and restrict access from development into the public lands during periods of high fire risk.
- 4.6 All new development proposals near the designated wildfire hazard zones should identify evacuation/emergency routes.
- 4.7 Coordinate with the county to locate a fire station in proximity to service Beaver City. Request the county to sponsor a Community Development Block Grant (CDBG) to locate the fire station at the North Interchange of Interstate 15--due to the enhanced access to all parts of the city and valley for emergency response time because of freeway access.
- 4.8 Require dual access, for new subdivision of more than 100 lots for emergency response or evacuation purposes.
- 4.9 Minimize fire risks by conducting controlled burns in a manner consistent with fire department standards.
- 4.10 Evaluate the need for fire-resistant landscape buffer zone for new and existing developments located in high risk fire hazard areas.

Hazardous Materials

GOAL 5: To minimize levels of risk to people and property from hazardous waste.

- Policies:**
- 5.1 Work with the fire department and other responsible agencies in identifying those activities that store, transport, or manufacture hazardous materials or wastes within the planning area.
 - 5.2 Promote safe transport of hazardous materials along key transportation routes by establishing designated transportation routes along key arterials.
 - 5.3 Restrict and prohibit land uses and activities that generate excessive amounts of hazardous materials or wastes that cannot be properly maintained or disposed.
 - 5.4 Monitor the safety issues related to the electromagnetic effects of high tension lines.

Groundwater Resources

GOAL 6: To serve and protect the groundwater resources of Beaver City and adjacent drainage areas in a manner which will provide for future use of these resources for domestic and agricultural uses.

- Policies:**
- 6.1** Maintain data and information on any commercial and/or agricultural uses that do not use approved sewer and/or sanitation systems to dispose onsite of wastewater or permit surface water runoff that may degrade local or regional surface and/or groundwater resources.
 - 6.2** Acquire and maintain the most current information available regarding commercial and agricultural land uses that do not dispose onsite of wastewater in permitted sewer and/or sanitation systems.
 - 6.3** Prohibit any use that cannot safeguard surface water and/or groundwater resources and that does not utilize approved onsite or offsite wastewater disposal systems.

Safety of Public Services, Utilities, and Facilities

GOAL 7: To ensure that all public services, utility systems, and facilities are designed and maintained as stated in the Goals and Policies section of the Public Safety element to provide acceptable levels of safety and security.

- Policies:**
- 7.1** Promote the safe use of toxic materials and their safe disposal as outlined in the Goals and Policies section of the Public Safety Element.
 - 7.2** Establish public education, recycling, conservation, and safety programs for the residents and businesses of the planning area in:
 - * Earthquake safety with respect to public utilities and facilities
 - * Safe disposal of toxic waste
 - * Recycling of oil and grease
 - * Landscape chemicals
 - * Litter, and anti-graffiti
 - * Pesticides
 - * Fire safety
 - * Other disasters
 - 7.3** Support laws and requirements to monitor, prevent, and correct, as appropriate, contamination of soil, air and water.

Gangs

GOAL 8: To prevent the formation, migration and proliferation of gangs to Beaver City.

Policies: **8.1** Promote cooperation and coordination between the Sheriff's Department, school districts, social service agencies and the community which will stifle the intrusion of gang related activities into the city.

Programs: **Gang Prevention**

8.a Prepare and implement a Gang Prevention Plan.

Graffiti Prevention

8.b Expand the existing drug education and gang education programs to include an element on graffiti prevention.

Community Maintenance

GOAL 9: To stimulate pride in the appearance of our community and improve the quality of life.

Policies: **9.1** Continue to support the upgrading of neighborhoods.

9.2 Support code enforcement efforts to remove abandoned vehicles from the street, vacant lots and streams of the valley.

9.3 Provide a consistent pattern of code enforcement in the city.

9.4 Promote neighborhood cooperation to clean up areas through neighborhood meetings and contact from the city.

Implementation of the Safety Element

Many tools can be used in the facilitation and implementation of the Safety Element.

- * Emergency preparedness and safety programs
- * Flood zones and dam inundation policies and standards
- * Wild land fire standards
- * Toxic and hazardous waste clean-up programs
- * Grading and drainage standards
- * Uniform Building Code
- * Uniform Fire Code
- * Zoning Ordinance
- * Capital Improvements Program
- * Nuisance Ordinance
- * Neighborhood Watch Programs

Soils Map

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Flood Plain Map

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Public Services Map

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Economic Development and Community Revitalization Element

Costs of Doing Business

Major factors, in the economic development of an area, include what community services and infrastructure are available to prospective investors and costs associated with those services. Currently Beaver City not only provides utility services for its residents and commercial users but also for hook ups outside the city limits. The information below is included as information for uses inside the city limits only.

Power

Beaver City has several sources of electric power (see Table 11). In addition three hydro-electric plants which are owned and operated by the city, power is purchased from the Hunter II coal fired plant, Idaho Power, the Colorado River storage plant (Glen Canyon), San Juan, Mexico (coal fired) and the Utah Association of Municipal Power Systems (UAMPS) These sources supply all of the city and surrounding area with comparably inexpensive power.

Table 11 - City Power Sources

| Source | Type | Percent of City Power Supply |
|---|----------------|-------------------------------------|
| Hunter II Power Plant | coal fired | 40 |
| Colorado River Storage Plant (Glen Canyon) | hydro-electric | 32 |
| Beaver owned plants | hydro-electric | 19 |
| Utah Association of Municipal Power Systems | varied | 6 |
| Idaho Power | Hydro-electric | 3 |
| San Juan, Mexico | coal fired | new source |
| Total | | 100 |

Separate rates have been established for residential, commercial and industrial uses.

Service Availability

Rates for the power and energy supplied by the City are outlined below:

| Schedule # | Description | Rate |
|----------------------------------|---|---|
| Residential | | |
| 1 | Residential Service | \$.068/kWh for all kWh. |
| Commercial and Industrial | | |
| 2 | General Commercial Service | \$.064/kWh for all kWh. |
| 3 | Demand Service (above 7 ½ kW or at head electrician option) | \$5.52/kW for all kW plus \$.045/kWh for all kWh. |
| 4 | Irrigation | \$.053/kWh for all kWh. |
| 5 | Street Lighting (customer owned system) | \$.064/kWh for all kWh. |
| Notes to Rate Schedules | | |
| Rates 1-3 | Hospital bond fee \$8.00/month | |
| Rates 1-3 | Minimum monthly billing \$5.00/ month | |
| Rate 1 | Outside corporate limits-customer charge: \$1.00/service connection /month | |
| Rates 1-3 | Participation in electric water heater load control program (\$3.00 credit/ service connection/month) | |
| Rate 1 | All electric (\$4.00 credit/service connection/month) | |
| Yard Light | \$10.80/month | |

Water

Individual residences, apartments and commercial business pay an initial fee ranging between \$500.00 and \$1,100.00, depending upon the size of the water line, for water service hook-up and are charged \$10.00 on a monthly basis.

Both residential and commercial users pay a monthly fee of \$10.00 for up to 10, 000 gals. and \$0.30 for each 1,000 gals. over 10,000.

Sewer

The initial sewer connection fee for residential users is \$350.00, while the connection fee for commercial and industrial users ranges from \$550.00 to \$2,400.00 or more depending on size and type of use.

Charges on a monthly basis include a base fee of \$4.00 per residence, in addition to fees from \$4.75 to \$75.00 or more depending on size and type of use.

Solid Waste

Each homeowner or resident pays a \$6.00 fee for solid waste disposal, while commercial and industrial users pay depending on a negotiated amount based on their particular needs.

Communications

Local telephone service is provided by U. S. West and long distance service is provided by AT&T. A local U. S. West office provides a full range of services including maintenance, installation, etc.

Natural Gas

Beaver enjoys the benefits of natural gas facilities which are provided by Mountain Fuel. Rates for winter and summer months are listed as:

| | |
|--------------------|-------------------------|
| Winter (11/1-3/31) | 65.2853 cents per therm |
| Summer (4/1-10/31) | 58.4837 cents per therm |

Banking

Beaver has two banks, the Utah Independent Bank-an independent locally owned bank, and First Security Bank. First Security Bank has affiliates throughout the western United States. Both banks specialize in a variety of financing for businesses and industrial enterprises.

In addition, the city is cooperating with the Five County Economic Development District Revolving Loan Fund. This pool of funds exceeding \$1.2 million may be used to assist qualified businesses who need to "bridge the gap" between available private financing sources and their equity. A program summary is included within.

Taxes

General Sales Tax

This tax applies to retail sales of tangible personal property, meals, admissions to places of amusement, intrastate communication, passenger service, hotel and motel accommodations and certain other services. The Utah Legislature provided for the exemption of machinery and equipment purchased or leased for use in new or expanded manufacturing operations in the state from the sales and use tax. Table 15 in Appendix I, page 137, indicates sales and use tax for selected cities in eight Western states.

Use Tax

The Utah use tax is levied on tangible personal property stored, used or consumed in the state but purchased outside the state and therefore not subject to Utah's sales tax. This tax has been waived by the Utah State Legislature for new and expanding businesses.

Corporate Income Tax

Utah is one of 45 states imposing a tax on corporate income. The rate is five percent and the tax is applied to corporate net income before deduction for federal taxes. Table 15 in Appendix I, page 137, shows the corporate tax rates for eleven Western states.

Inventory Tax

A law enacted in 1969 eliminated the state's inventory tax. Since January 1, 1973, Utah has imposed no ad valorem taxes on inventory of any kind in any place in the state.

Unemployment Compensation Tax

Employer tax rates are determined based upon the benefits paid to former employees. The total benefit costs assigned to an employer are divided by that employer's total taxable wages for the same period which results in a benefit ratio and is the employer's basic tax rate. In addition to the basic tax rate, a reserve factor and social tax are also part of each employer's overall tax rate.

The minimum tax rate for 1993 was 0.5% and the maximum rate was 8.0 percent, depending on unemployment experience. The basis of the tax was the first \$14,500 of wages paid to each employee during the calendar year.

Construction Work in Progress

This tax program lightens the tax burden on projects that are under construction on the assessment date before they are functionally completed and put into service. It will accomplish this by:

** Phasing into the tax appraisal over the time that the project is under construction specific preconstruction costs associated with the planning and the preparation for the project.

** Discounting expenditures made before the project is complete in order to reflect the "time value of money"--the amount of interest expenditures could have earned over the construction period at the prevailing rate of interest at the time.

Auto Registration

1.7% of Market Value

Property Tax (1993)

0.1098% (City) 0.8200% (School) 0.1696% (County)
0.0305% (Fire District #1) 0.092% (Health) 0.0167% (Library)
(1.2058 % RATE TOTAL)

Personal State Income Tax

7.2% (Maximum rate for married couple filing a joint return)

Development Permit Process
(Estimated Time Frames)

| | |
|--|--|
| Principally Permitted Use -- | Site Plan Review (2-4 weeks) |
| Conditional Use Permit -- Commission-Public Hearing | Site Plan & Planning (4-6 weeks). |
| Zone Change -- | Site Plan--Planning Commission and City Council Public Hearings (8-10 weeks) |

Redevelopment Efforts

The city has been and is currently involved in rehabilitation and redevelopment efforts associated with some of its historic buildings and is interested in revitalizing the Main street corridor through a "Main street Overlay District" (see map page 77). With completion of the current library facilities expansion and renovation the city can provide Headstart and satellite education programs for use by community and surrounding area residents.

Additionally, the city has in place a "Main Street District" which can aid in the overall marketability of city resources. These resources will continue to be utilized as the number of travelers along Interstate 15 and visitors to Beaver City increase over the coming years.

Goals and Policies

Business and Economic Activity Diversification

GOAL 1: To achieve a balanced mix of manufacturing, commercial, retail, cultural, entertainment, and service uses that result in a diversified, stable, and environmentally sound local economic base.

- Policies:**
- 1.1 Seek to expand Beaver's economic base by planned annexation program.
 - 1.2 Determine a desirable business diversification profile for Beaver City.
 - 1.4 Encourage business opportunities in the more remote areas of the planning area, in addition to known new commercial and industrial centers.
 - 1.5 Assist in the development and promotion of amusement, entertainment, filming, and the arts, as a theme for the Planning Area to create a positive identity and enhance tourist and business opportunities to bring revenues to the city.
 - 1.6 Annually or biannually prepare a Beaver City labor market profile for purposes of recruiting firms.
 - 1.7 Work together with local educational institutions, employers, real estate developers, and others to anticipate changes occurring in employment demands in the city, and together with these groups, promote job training, skill enhancement, and educational excellence.
 - 1.8 Assess periodically those social, economic, political and other forces which are affecting the city's competitive position in the region and, where possible, develop policies and programs in response to those forces to enhance the city's competitive position.
 - 1.9 Monitor and assess the city's fiscal position relative to the land use mix and any changes associated with the land use mix.

Growth Guidance

GOAL 2: To ensure adequate infrastructure and economic base support, the city should seek to stimulate simultaneous development of businesses and housing occurring within its boundaries and within the planning area.

- Policies:**
- 2.1 Monitor on an on-going basis (annually) the extent and location of development and changes occurring within the planning area in order to measure the degree to which needed balance between land uses allocated in the General Plan is maintained.

- 2.2 Assist in planning for the need to balance city environmental and permit processes with the objectives of economic development.
- 2.3 Ensure that the city explores the maximum use of funding sources, federal, state and local sources which reduce dependency upon fees and exactions.
- 2.4 Encourage clean, non-polluting industries to develop in the city.

Economic Development Organization

GOAL 3: Consider the establishment of public/private bodies that will facilitate the implementation of the economic development policies of the General Plan.

- Policies:**
- 3.1 Explore the possibility of a small business incubator program and other programs to enhance small businesses.
 - 3.2 Where practical, continue to support activities related to tourism, and business relocation/ development opportunities within the city.

Provision and Financing of infrastructure

GOAL 4: To serve existing and new economic growth, the city should pursue timely and equitable strategies to provide financing of basic, community, and public safety infrastructure.

- Policies:**
- 4.1 Actively solicit increased funding and local priorities agreements with UDOT to provide on-going freeway facility expansion and maintenance.
 - 4.2 Consider financial impacts in connection with the provision and ongoing maintenance of public services and infrastructure.
 - 4.3 Develop a fiscal impact model to assist the city in evaluation of the revenues and costs associated with provision of public services, infrastructure, and maintenance.

Fiscal Balance

GOAL 5: To ensure the city's present and future fiscal balance of revenues and expenditures is maintained.

- Policies:**
- 5.1 Seek a mixture of land uses, and the progressive and concurrent development of such uses, so that service costs are provided for in the budget, the General Fund, Capital Improvement Program, Enterprise Funds, and other financing mechanisms.
 - 5.2 Require new public and/or private developments to demonstrate the ways in which they can contribute to the achievement of the city's fiscal balance.
 - 5.3 Developers should provide fiscal impact analysis and pro forma information to the city on development projects.

City Marketing

GOAL 6: To market and promote the city's available resources as necessary to encourage further expansion of its economic base.

- Policies:**
- 6.1 Consider the establishment of an economic development office to develop a program to enhance the economic base of the city.
 - 6.2 Cooperate with Chambers of Commerce and revenue source agencies to develop and enhance the economic base of the city.
 - 6.3 Foster enterprise stimulation by providing current city statistics and brochures to prospective businesses.
 - 6.4 Be proactive in stimulating and attracting new business to locate within Beaver City.
 - 6.5 Develop and implement a comprehensive marketing plan which strongly focuses on community wants and needs.

Revitalization

GOAL 7: To promote revitalization for the city's long-term economic stability.

- Policies:**
- 7.1 Determine specifically which areas of the city require further revitalization or initiation of new revitalization or redevelopment efforts.
 - 7.2 Determine which major rights-of-way are likely to change in character in the near future, and the degree to which right-of-way improvements can stimulate adjacent private land assembly and re-use.

City Center

Goal 8: To promote the revitalization of the City Center

- Policies**
- 8.1** To implement a city beautification project which encourages redevelopment efforts in the down town and surrounding areas.
 - 8.2** To provide standards for landscaping buffers along designated roadways.
 - 8.3** To encourage the revitalization and development of commercial enterprises along Main Street and Center Street.
 - 8.4** To designate and delineate a City Center Project Area.
 - 8.5** To implement a city-wide nuisance ordinance.

Long Range Financial Planning

GOAL 9: To prepare a long-range financial plan which would contain both an operating and capital plan and be updated on a regular basis.

- Policies:**
- 9.1** Strive to make the Fiscal Planning System operational and useful in entitlement decisions no later than 1993.
 - 9.2** Formally adopt an annual long-range financial plan.

Allocation of Service, Facility, and Utility Costs

GOAL 10: To allocate the cost of public services, facilities, and utilities on a fair and equitable basis based on service demand generated and benefits derived from services/improvements.

- Policies:**
- 10.1** Make use of specific plans and development agreements that specify the nature, timing, cost, and financing mechanisms to be used to fund improvements and services.
 - 10.2** Utilize, where appropriate, public financing mechanisms, such as special assessment districts, and community facilities districts, to fund improvement and service costs.
 - 10.3** Support funding of infrastructure improvements that are consistent with the city's General Plan and financing guidelines.
 - 10.4** Aggressively pursue, State, and Federal funding for roads, freeway, and highway expansion in the city.

Implementation of the Economic Development and Community Revitalization Element

The primary tools with which the city should undertake to implement the Economic Development and Community Revitalization Element of the plan include:

- * A comprehensive marketing plan
- * Specific plans
- * Development agreements
- * Redevelopment and revitalization programs
- * Industrial Development Bonds

Historic Points of Interest & Main street Overlay Map

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Noise Element

Characteristics of Sound

There is a basic, yet important, distinction between sound and noise. Sound is anything that is or can be heard. Noise is unpleasant or unwanted sound.

Sound is produced when an action (e.g., a clap of the hands, a running engine) causes air pressure to vibrate in all directions around the source. When people hear sounds, they are actually detecting the changes in air pressure on their eardrums. This action is similar to throwing a stone into a pond. The stone produces waves, or vibrations, which are carried to the edge of the pond.

Each person's interpretation or perception of sound may differ, depending on the person's sensitivity and the time of day. Most people are more sensitive to sound late at night. Often, sounds that would not bother people during the day will bother them later at night.

Before the existing noise environment can be described, a number of terms need to be explained. The most common terms used in defining noise are discussed in the following paragraphs.

Effects of Noise

The noise level in this society has continually increased, due in part to the use of larger and noisier transportation vehicles and to the increase in the number of vehicles. Additionally, the increasing demand of the growing population for better, more convenient transportation facilities, coupled with inadequate noise control measures to buffer residential and other noise sensitive areas from the noise generated by these facilities, has increased noise impacts.

Studies have been performed by the U.S. Environmental Protection Agency (EPA) and other public and private organizations to determine the relationship between particular noise levels and human health. The human response to noise has been varied and complex. Noise has been found to have effects in the following areas: (1) physiological, (2) psychological, (3) behavioral, and (4) subjective.

Physiological Effects

Physiological effects may be temporary or more enduring and permanent. A loud, sudden noise may cause only a startled reaction (increased heart rate) or a momentary hearing loss, while louder and longer sound can be more harmful. Exposure to sufficient levels of noise for long periods of time can produce temporary or permanent hearing loss. However, sound levels normally must exceed 80 db for sustained periods before hearing loss occurs. The greater or longer the exposure, the greater the potential for hearing loss. Additional physical effects beyond increased heart beat and temporary or permanent hearing loss include blood vessel constriction, dilation of the pupils, paling of the skin, headaches, muscle tension, nausea, insomnia, and fatigue.

Psychological Effects

As with physiological effects, psychological effects may be temporary or more enduring and permanent. Prolonged physiological effects can cause, contribute, or translate into psychological effects. For instance, if a physiological effect of fatigue or insomnia is present, it could quite easily translate into anger, anxiety, and even hallucinations.

The psychological effects of noise include interference with sleep. Excessive exposure may also cause symptoms of anxiety, vertigo, and hallucinations.

Behavioral Effects

Behavioral effects involve interference with everyday activities, such as conversation, watching television, or studying. Loud noise may interrupt the activities or prevent the activities from continuing.

Normal conversational speech is in the range of 65 to 70 db, and noise above that level can interfere with speech, depending on the distance between speakers. A report published by the EPA states that "continuous exposure to noise levels above 90 db appear to have potentially detrimental effects on human performance," especially for tasks requiring intense concentrations.

Subjective Effects

Subjective effects represent a combination of physiological and behavioral impacts. By nature, subjective effects are most difficult to describe because different people react differently to particular noises. For example, a jet airplane flying overhead may disrupt a conversation between two people and cause momentary hearing loss. One person might term this occurrence as extremely annoying, whereas another person may find it only a mild nuisance.

Community reaction surveys have found that prolonged noise levels approaching or above 85 db generally disturb a community to the point of vigorous community action directed toward reducing or eliminating the noise source.

Noise and Land Use Compatibility Guidelines

Community decision-makers should use available community noise information to ensure that a minimum number of people are exposed to potentially harmful noise sources. To aid decision-makers, several federal and state agencies have established noise/land use compatibility guidelines. These guidelines are all based upon cumulative noise criteria, such as Leq, CNEL, or Ldn.

Environmental Protection Agency (EPA)

In March 1984, the EPA published a document entitled Information of Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety, (EPA 550/9-74-004), which identifies noise level thresholds requisite for protecting human health in both indoor and outdoor environments. According to this publication, 55 Ldn is described as the threshold level with an adequate margin of safety for outdoor activities associated with residential development and recreational. The document and the thresholds are advisory only and not considered standards, specifications, or regulations.

Federal Highway Administration (FHWA)

The FHWA has adopted and published noise abatement criteria for highway construction projects. The FHWA noise abatement criteria establishes an exterior noise goal for residential land uses of 67 Leq. The interior goal for residences is 52 Leq. The criteria apply to private yard areas and assume that typical wood frame houses with open windows provide a 10 dB noise reduction (outdoor to indoor) and a 20 dB noise reduction with the windows closed.

Goals and Policies

Noise Level Control Standards

GOAL 1: To protect the health and welfare of the residents of Beaver City and the planning area by the elimination, mitigation, and prevention of significant existing and future noise levels.

- Policies:**
- 1.1** Restrict the use of "Jake Brakes" in areas which impact the residents of Beaver City.
 - 1.2** Enforce the Uniform Building Code to promote construction practices which limit interior noise levels.
 - 1.3** Limit the type and extent of residential development along designated major arterial, arterial and truck route roadways.
 - 1.4** Restrict construction practices to daylight hours in areas where residential neighborhoods would be impacted by nighttime building or other construction.

Programs: **1.a** Incorporate a truck route and other regulatory truck traffic signage into the city's sign ordinance.

Implementation of the Noise Element

The primary tools with which the city should undertake to implement the Noise Element of the plan include:

- * Zoning Ordinance
- * Noise Control Ordinance

Parks and Recreation Element

City Facilities

Several city amenities were listed, at the outset of the general plan process, as being positive for the community. Among those were parks and recreation facilities. The desire of the community to have quality recreation facilities is born out in the facilities the city currently has.

Beaver City residents currently enjoy four community parks within city limits. Those parks include Beaver Canyon Park, a Little League Park, Main Street Park, Pioneer Park, and Swimming Pool Park.

The 8 acre Beaver Canyon Park located at 200 North 1700 East includes two tennis courts, rodeo grounds, a base-ball field (all lighted), playground facilities and parking. The Little League Park, 2 acres in size, which includes 2 base-ball fields is located at 105 North 500 East. The Swimming Pool Park, located at 105 North 400 East, has a base-ball field, outdoor theater, and cooking area all of which are lighted, in addition to the indoor swimming pool. Main Street Park at 80 S Main uses 3.1 acres with a lighted base-ball field, a picnic area, drinking fountains and a play ground (see map page 87).

These facilities are all high quality and are valuable assets to the community. As the community grows these parks will be more heavily utilized and therefore a strain on the facilities may arise. In order to continue to provide for community activities in a positive way, a variety of park types are suggested within the goals and policies of the community. These parks may in the future range from neighborhood parks, within subdivisions, to equestrian trails linking various parts of town.

In addition to these city facilities, an abundance of hiking or horseback riding opportunities abound along one of the many available trail systems in the near vicinity of Beaver City (see map page 88). Some of the most favored trails in the area include Delano Peak, Skyline National Recreation Trail, Abandoned SR 153 Loop, Blue Lake #123, Cove Creek Trail #054, Clear Creek Canyon, Four Creeks Loop, Piute ATV Trail, Sargent Mountain Loop and the Southcreek Labaron Trail. Though these are some favorites, many more trails are located in the area (see Appendix J, page 139).

A fine tradition of parks and other recreation amenities in and around Beaver City currently exists. As a community we want to continue that tradition by allowing for the expansion, addition and maintenance of existing and future parks in our city.

Goals and Policies

Development of a Comprehensive System of Parks and Recreational Facilities to Meet Existing and Future Needs of Residents

GOAL 1: Provide, develop, and maintain parks with quality recreational facilities dispersed throughout the area.

- Policies:**
- 1.1 Provide a combination of local park acreage, park facilities, and recreation programs to serve neighborhood needs.
 - 1.2 Develop a variety of park types and sizes (regional, community, neighborhood) which are distributed adequately to serve all area residents and to prevent overcrowding and overuse.
 - 1.3 Provide programs for a variety of passive, educational, and active recreational opportunities for all area residents.
 - 1.4 Establish a master plan of parks and recreation facilities.
 - 1.5 Promote the integration of the network of trails and open space to provide linkages to parks within and outside the planning area.
 - 1.6 Promote the development of equestrian trails in the river and stream channels and other open space areas away from urbanization and to connect with trails in public lands in addition to locations within and adjacent to road easements.
 - 1.7 Use every opportunity to obtain land and facilities as it becomes available and/or ahead of need and hold, or landbank, for subsequent improvement to meet future park and recreation needs. Establish an open space district for the purpose of acquiring park and open space land.

Park Standards

GOAL 2: To establish standards and implementation measures to guide future parkland development throughout the area as provided in this element.

- Policies:**
- 2.1 Develop standards for park acquisition concerning the location, size, service radius, configuration, slope evaluation, access, and infrastructure as part of the Parks and Recreation element.
 - 2.2 Locate and identify potential new park sites using a park overlay designation. Place an emphasis on requiring and developing park sites in underserved areas of the city.

- 2.3 Explore alternative funding sources for the acquisition and development of new parks and recreation/open space districts.

Park Improvement and Maintenance

GOAL 3: To encourage the improvement, rehabilitation, and maintenance of existing parks and recreational facilities.

- Policies:**
- 3.1 Improve existing athletic fields with lights and equipment as recommended by the City Council.
 - 3.2 Establish a park funding program to ensure that the funds are available to improve and maintain dedicated parkland or acquired park acreage.
 - 3.3 Provide low-maintenance, vandal-resistant parks, recreational facilities, and equipment.
 - 3.4 Promote the establishment of citizen volunteer programs for park maintenance in cooperation with the Department of Park and Recreation.
 - 3.5 Pursue mechanisms, such as a joint powers agreement, by which the city, county and school districts can establish standards for the improvement and maintenance of parks in a manner consistent with the planning area.

Development of Community Centers

GOAL 4: To develop community centers which provide multiple-use opportunities for the residents of the planning area on county-wide parks and other such locations deemed appropriate.

- Policies:**
- 4.1 Develop standards for and promote the development of community centers.
 - 4.2 Develop mechanisms to provide and support community cultural arts facilities and programs.
 - 4.3 Promote joint property agreements for use and development of joint school park sites and facilities.

Provision of Recreational Opportunities For All Age Groups and Economic Backgrounds

GOAL 5: To develop a system of parks and recreational facilities and programs which provide recreational opportunities for all segments of the community.

- Policies:**
- 5.1 Evaluate the feasibility of providing and staffing public facilities for child care in conjunction with county parks and recreation programs.
 - 5.2 Establish a Teen Activities Council to be planned, organized, and operated by local youth under the administration of the Department of Parks and Recreation.
 - 5.3 Promote the tree planting program and establish other nature and environmental programs.
 - 5.4 Establish a diverse year-round entertainment program, including concerts, performing arts, and other programs.
 - 5.5 Establish countywide volunteer programs under the direction of the Department of Parks and Recreation.
 - 5.6 Provide recreational and leisure time opportunities for senior citizens.
 - 5.7 Promote the development of organized youth sports activities.
 - 5.8 Investigate the appropriateness of user fees and/or subsidies for specialized recreational services.

Private Developers and Public Agencies Cooperation

GOAL 6: To promote public/private cooperation in developing park improvements, recreational services, and facilities.

- Policies:**
- 6.1 Promote the expansion of joint-use agreements with the school district to provide recreational programs and facilities in existing and future residential neighborhoods.
 - 6.2 Encourage private joint-use agreements for facilities provided by non-profit agencies such as the YMCA, and Boys and Girls Club.
 - 6.3 Encourage and promote cooperation between agencies to facilitate the multiple use of public rights-of-way consistent with the general plan and public safety.
 - 6.4 Promote cooperation between federal, state, and local agencies to coordinate regional park planning.
 - 6.5 Encourage the development of private commercial recreation facilities such as batting cages, miniature golf, driving ranges, aquatic facilities, skate courses, food service concessions, and other commercial activities.

- 6.6 Encourage developers to improve and/or construct parks and recreational facilities in lieu of paying fees as partial fulfillment of park and recreation requirements.

Cultural Opportunities

GOAL 7: To encourage the development of a wide range of community and cultural activities throughout the planning area.

- Policies:**
- 7.1 Promote the establishment of community-based organizations and develop community gathering areas which promote a variety of cultural activities in the planning area.
- 7.2 Preserve and enhance designated significant historic assets and other structures and amenities which provide community focal points and which broaden the cultural and preservation opportunities within the city.
- 7.3 Promote community- wide cultural programs for all ages such as:
- * Cultural education programs
 - * Art programs and classes in schools
- 7.4 Promote the airing of public access programs and broadcasts of public meetings by cable television providers.

Implementation of the Parks and Recreation Element

- ** A parkland dedication ordinance
- ** A gift or public trust park and recreation ordinance
- ** Provisions for onsite recreational opportunities in residential as well as commercial and industrial categories.
- ** Park bonds and State grants and funds
- ** Dedication of trail easements
- ** Establishment of landscape maintenance districts

Parks & Recreation Map

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Trails Map

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Appendices

Appendix A - Tier Growth Boundaries

Land Use and Growth Management Tiers and Levels of Service Standards

Purpose

Through the development of "Joint Planning Areas" with Beaver County, planned growth areas surrounding Beaver City will be developed and divided into "Tiers", to which an estimated time period for the development of public services has been estimated. The growth management plan which delineates "tiers," transportation corridors and joint planning areas is designed to achieve orderly growth, build-out and provision of public facilities and services.

The term "growth management," over time, has come to represent local government plan implementation strategies designed to affect one or more of the following attributes of new development: amount; location; type; density/intensity; quality; rate and timing; fiscal impact; need for adequacy and availability of public facilities and services. Growth management systems employed nationally have "mixed and matched" these objectives depending upon local circumstances, legal authority and specific comprehensive plan objectives. Frequently local governments have been concerned about only one of the above mentioned attributes of new development.

Each of these attributes can be addressed using one or more specific growth management implementation techniques. Managing growth does not mean stopping change or closing the door on new residents or employment and job creation. Properly designed and implemented, a comprehensive growth management system should provide a framework that enables local governments to balance and accommodate diverse and competing physical, economic and social interest while ensuring the quality of life in the region.

In most cases, growth management systems include "timing" and "sequencing" elements to insure that growth is properly assimilated into the City over the life of the General Plan.

The growth Management System for Beaver City

The growth management system for Beaver City will consist of four (4) interrelated techniques which operate at varying levels of detail. The techniques are :

1. Delineation of long-term "tier growth boundaries" designed to separate land surrounding Beaver City into tiers with a timed development plan.
2. Delineation of "tiers," transportation corridors and joint planning areas are designed to achieve orderly growth, build-out and provision of public facilities and services; designation of Joint Planning Areas shall be negotiated with Beaver County, on which the County and the Cities, shall develop plans consistent with Goal 4 of this Plan Element.

3. Concurrency (or adequate public facility) requirements by which individual development proposals are reviewed to ensure that necessary public facilities and services, at adopted City level of service (LOS) standards are available and to ensure that such development does not contribute to or promote sprawl development patterns. Beaver City requires that adequate public facilities be available to all areas before development occurs. The development of adequate public facilities to all new developments is the developers responsibility, and the developer shall bear all costs for the facilities. In development a growth management plan (tiers) the developer and Beaver City may considered development any and all tiers sooner than this growth management plan states if: (1) The developer fronts all costs for developing the facilities to Beaver City's level of service standards; (2) that studies show that the providing services in an area is within the economy feasibility of Beaver City; and
4. Impact fees and other financing and regulatory measures to ensure that new development contributes its "fair share" towards the additional public capital expenses that will accrue as a result of such development.

1. Tier Growth Boundaries

The tier growth boundaries (TGB) will separate areas of the unincorporated county into areas which Beaver City has estimated the time periods at which public services maybe available. By discouraging growth in outlying areas while encouraging or facilitating growth in existing, developed areas, the TGB will channel development (and public facilities and infrastructure) into those areas most economically suitable for urban growth.

Urban growth strategies based upon geographic delineations can be either short-term, for example, based on public facility capacities which can be increased through infrastructure investment, or long-term, where the objective is to establish a permanent framework for growth in the community. This Plan includes the use of both methods. The adoption of a long-term geographic restraint will be done through the establishment of a perimeter or a boundary beyond which no urban scale development is presently contemplated. This boundary will be incorporated into the Growth Management Element of the General Plan and should not be changed absent compelling reasons. It is intended to be a fixed boundary for the life of the Plan. Because of the significance of this boundary on both the public and private sectors, delineation of the Urban Growth Boundary should be accomplished in a careful, thoughtful manner, utilizing available planning studies and data, relying on policy directives by the Planning Commission and the Beaver City Council, and capable of being justified and supported according to quantitative and qualitative standards and criteria. In addition, planning studies will demonstrate the adaptability of areas within the TGB to the extension of public facilities and services such as streets, sewers, water, and the inability or undesirability of servicing areas beyond the TGB. The Land Use Element and Map will ensure that the delineation of land use categories within and outside of the Tier Growth Boundary are consistent with the purposes and intent of the TGB as set forth herein. Implementing regulations will then be adopted which limit development outside the TGB to more rural uses and densities which do not require the provision or extension of urban facilities and services.

Tier growth areas should be of sufficient size to accommodate urban growth, taking into account the following considerations, which will influence the amount of land which must be designated for urban growth:

- land with natural constraints, such as critical areas (environmentally-sensitive land);
- agricultural land to be preserved;
- greenbelt and open space;
- the classification of corridors, centers and nodes of non-residential development activity;
- maintaining a supply of developable land sufficient to allow market forces to operate and to

- preclude the possibility of a land monopoly, but no more than is absolutely essential to achieve the above purposes;
- existing projects with development potential at various stages of the approval or permitting process (i.e., the "pipeline");
- land use patterns already created by existing subdivisions, recorded plats or large lot divisions; and
- build-out of existing development and areas which are currently only partially built out.

The following factors will be considered in determining the precise location of urban growth area boundaries:

- geographic, topographic, and manmade features;
- public facility and service availability, limits and extensions;
- jurisdictional boundaries including special improvement districts;
- location of designated natural resource lands and critical areas;

Designation of the Beaver City TGB will provide the following advantages to the City:

- encourage an efficient development pattern
- avoid the unnecessary and premature consumption of land that cannot be developed efficiently
- provide a strategic focus for capital investments and the extension of public facilities
- maintain fiscal integrity by encouraging the utilization of existing transportation systems and other public facilities and services
- enhance the City's tax base
- encourage the development of local job opportunities
- protect and preserve natural and environmental features
- enhance the City's ability to provide a comprehensive open space/trail system
- provide certainty in the development approval process by mapping, in advance, those areas where public facilities are and will be made available at adequate capacities in the near future and those areas in which public facilities and services are not planned to be extended
- facilitate development by providing sufficient development tiers with zoning densities appropriate to support anticipated population and employment increases.

Tier Standards

The Beaver City TGB will be refined further by more specific application of density regulations, impact fees, concurrence requirements and environmental considerations. The functional planning area concept recognizes that different areas of the City present different problems relating to growth and development.

The "tier" framework for growth management allows for major issues to be addressed on a community-wide basis and on a smaller scale, this aids the City in understanding the interrelationships between, and implications of, varying growth policies, goals and implementation techniques. A breakdown into functional and geographic areas allows the City to describe goals and objectives for each area, to evaluate market forces and growth trends selectively for each area, and to consider implementation techniques that are specific for, and responsive to the needs of, each area. Thus, goals that would be competing or conflicting when applied uniformly throughout the entire TGB can be harmonized when viewed selectively by tiers.

The Beaver City growth management system recognizes the concepts of "growth" areas and "limited growth" areas. Tiers within the growth area are designated as "urbanizing," "Planned Urbanizing" and "Future Urbanizing."

The Urbanizing tier includes those areas which are undergoing active urbanization and which are presently served by public facilities. The Planned Urbanizing tier represents "new" growth areas (i.e., areas which may exhibit some existing development, but which are not served by the full range of necessary public facilities and services). Targeted areas would include transportation corridors, negotiated joint planning area, development "nodes," or activity centers. Growth in these tiers must be sensitive to compatibility and fit with the type and intensity of existing development, relying upon use of such techniques as:

- sliding scale buffering and screening requirements based on adjacent use considerations
- performance standards
- height and bulk limitations
- provision of open space
- flexible front, side and rear yard requirements
- protection of natural resources and environmentally-sensitive lands

The urbanizing area (Tier 1), should be delineated on the Capital Improvement Growth Areas map based on the following factors:

- Proximity to existing highway collector system
- Largely Developed Areas
- Existing or approved/developing subdivision plats
- Recognition of planned public capital improvement projects
- logical capital improvements phasing
- currently served by sewer
- Developed/developing commercial centers
- Developed/developing major recreational centers
- Availability for high-density infill development
- Developed/developing industrial park with appropriate access to transportation network
- Adjacency to joint planning area-urban expansion

The Planned Urbanizing area (Tier II) should also be delineated on the Capital Improvement Growth Areas Map. This area is already characterized by some urban growth that will be served by a combination of both existing public facilities and services and any additional needed public facilities and services that will be provided by either public or private sources and meets the following criteria:

- Logical capital improvements phasing would occur over a 10-20 year time horizon
- Road design does not meet ultimate capacity standards; no frontage roads
- Water quality/supply is poor
- Large tracts of undeveloped areas remain
- Potential sending area for transfer of development rights

The future Urbanizing area (Tier III) should also be designated on the Capital Improvement Growth Areas Map) and should not be open to urban development until the Urbanizing and Planned urbanizing areas are built out. Growth in this tier will relate to long range planning and capital improvements programming. Various techniques may be used to ensure that all property owners have reasonable use of their land within a reasonable period of time; these may include, but are not limited to, the following:

- conservation easements;

- preferential tax assessment;
- cluster housing, utilizing the presently authorized number of units;
- planned unit development transfer of development rights;
- purchase of property;
- open space corridor designation;
- greenbelt designation;
- other innovative techniques.

The Rural area is intended to be a permanent rural density development area. Rural areas, designated on the Capital Improvement Growth Areas Map, should meet the following criteria:

- Predominately rural/agricultural in use
- Sensitive lands, appropriate for protection as open space
- Lack of public facilities
- logical extension time of greater than 15 to 20 years
- existing/planned septic systems
- Distance to existing urban areas
- Lack of appropriate access to highway system

The delineation of the TGB and tiers superimposed on the Land Use Districts Map will create an urban form for Beaver City with the following attributes:

- a compact and efficient development pattern with phased urbanizing areas supporting growth of varying density/intensity;
- maintenance of the vitality of existing centers and "nodes"
- maintenance of the existing community and local identity;
- preservation of areas for rural use;
- creation of new centers and corridors with a mix of jobs and housing;
- definition of economic activity centers
- phasing of urban and suburban development over time consistent with the availability of public services and facilities;
- protection of floodplains;
- creation of regional open space/greenbelt system;
- retention of most hillsides in non-urban uses

Transportation corridors are designated areas that, due to planned transportation improvements and existing infrastructure, will be target for future growth within the tier framework. Transportation corridors may be separately mapped to overlay the tier delineations. Some transportation corridors will pass through more than one tier and therefore may require the use of differing techniques.

The transportation corridor, by establishing a framework for the consistent linkage of transportation facilities and land uses, facilitates joint development. Within the transportation corridor concept the exercise of the power of eminent domain to acquire land for joint public-private development serves a number of important public purposes. Effective utilization of the transportation corridor concept provides the public sector with significant public purposes and revenue generation.

The transportation corridor reflects a far broader concept than a mere highway system, both in terms of geographic configuration and function. The corridor is a mapped area whose central focus is a proposed or existing transportation facility, including, but not limited to a section of the state or interstate highway system. The boundaries of the transportation corridor will be established, based upon sound planning and study, to include not only all rights-of-way necessary to meet projected facility demands but also the entire area which is deemed to be impacted by the facility at its ultimate capacity. Functionally, the transportation corridor is more than an area between two points used for

the movement of people and goods. Each corridor can be a nexus for major commercial, industrial and/or high density residential development.

3. Adequate Public facilities (Concurrence)

The adequacy and availability of public facilities and services to support growth and development has become a key issue in most areas, both because of the financial implications as well as the effect on the timing of development. While the delineation of urban growth boundaries addresses this issue in part, it does not do so on a case-by-case basis as development proposals are submitted and considered. A concurrence system requires that prior to the issuance of a land development permit, the applicant must demonstrate that all necessary public facilities and services are available and adequate at a specified level of service (LOS) standards.

The "adequacy" requirements provides that, for a development project to be approved, infrastructure must conform to level of service standards established in the General Plan.

The availability requirement establishes where needed public facilities or public facility capacity is indeed available for use by the proposed development. Unlike other resources which are sometimes used to measure carry capacity, infrastructure capacity is not static. It is increased as new capital improvements are added, and, it is decreased as other development comes on line. Development approvals can be denied deferred or recommended for phasing in order to keep infrastructure capacity and utilization in proper balance.

A key component of any concurrence management system is the determination of which public facilities are included and where they should be applied to all types of development.

Levels of Service can be adopted by the County for public facilities even if the County is not the service provider who is responsible for provision of those facilities.

4. Impact Fees and Financing of Capital Facilities

The financial implications of new growth have led many communities to adopt impact fees and other taxing and regulatory financing systems . Impact fees are a regulatory police power mechanism whereby the capital cost of a city's need to support new development is funded on a prorated basis by such development. Courts in many states, including Utah, have judicially approved the concept of impact fees as long as various legal and constitutional requirements are met. Those requirements include procedural due process, substantive due process, equal protection and "earmarking." The latter requirement insures that money collected from the payment of impact fees will be segregated from other City funds and used only for the purpose for which it has been collected. The constitutional standard for impact fees has generally been described as the "rational nexus" test. The test has two parts: (1) that the need for the public facility or public facility expansion is the direct result of the proposed new development; and (2) that the proposed new development will benefit from the provision of the public facility.

| FACILITY/ISSUE | ADOPTED LEVEL OF SERVICE | |
|---|---|---|
| | UNIT OF DEMAND/OPERATIONAL CHARACTERISTICS | LEVEL OF SERVICE |
| Transportation: State Roads | Operational characteristics as defined in the Transportation Research Board. <i>Highway Capacity Manual</i> (Special Report 209, 1985). | Level of Service "D" |
| Transportation: City Roads and Intersections | Operational characteristics as defined in the Transportation Research Board. <i>Highway Capacity Manual</i> (Special Report 209, 1985). | Level of Service "C" |
| Water: Source, Treatment and Management | Gallons per day per household or equivalent residential unit (ERU). | <p>All applications for subdivision, site plan, or conditional use approval shall connect to a public water system as defined by the Safe Drinking Water Act (<i>Utah Code 19-4-101 et. seq.</i>), defined as a community water system and approved by the Executive Secretary of the Department of Environmental Quality. All applications for subdivision, site plan, or conditional use approval shall demonstrate that adequate water rights, as measured by subsection b, herein, are available and have been approved by the State Engineer.</p> <p>Source and storage capacity requirements shall contain adequate capacity for indoor water use, irrigation, and fire flow as set forth in the applicable provisions of Utah Administrative Code rule 309-105 and section 16.1.11 below.</p> <p>All applications for subdivision, site plan, or conditional use approval shall demonstrate that adequate water rights, as measured by subsection b, herein, are available and have been approved by the State Engineer.</p> |

| FACILITY/ISSUE | ADOPTED LEVEL OF SERVICE | |
|--|---|---|
| | UNIT OF DEMAND/OPERATIONAL CHARACTERISTICS | LEVEL OF SERVICE |
| Water: Transmission and distribution | Pressure measured in pounds per sq. inch (psi) for peak instantaneous flow. | The distribution system must be sized to accommodate peak instantaneous flows with a minimum of 20 psi pressure existing in the system at all points, as measured by the equation set forth in Utah Administrative Code rule 309-105-1, and shall comply with the fire flow standards set forth in Utah Administrative Code rule 309-105-3. |
| Water Quality: | Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS). | Pollutant contributed per EDU is 200 ppm 5-day 20 centigrade BOD; 250 ppm TSS |
| Sanitary Sewer: Treatment facilities | Gallons per equivalent residential unit per day, derived from gallons per capita per day. | 320 gallons per day per dwelling unit or equivalent ERU. |
| Sanitary Sewer: | Gallons per equivalent residential unit per day, derived from gallons per capita per day. | 1,280 gallons per ERU. Mandatory hookup is required where a structure is located within 300' of a sewer line. |
| Sanitary Sewer: Interceptors and outfall sewers | Gallons per equivalent residential unit per day, derived from gallons per capita per day. | 800 gallons per ERU |
| Septic Tank: | Tank capacity in gallons; absorption area in sq. ft. per bedroom or sq. ft. | Tank capacity and absorption area standards established by the State Department of Environmental Quality |

| FACILITY/ISSUE | ADOPTED LEVEL OF SERVICE | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---------------------------------|--------------|-------------|---|-------------|---|-------------|---|-------------|---|-------------|---|-------------|---|-------------|---|-------------|---|---------|----|
| | UNIT OF DEMAND/ OPERATIONAL CHARACTERISTICS | LEVEL OF SERVICE | | | | | | | | | | | | | | | | | | | | |
| Fire Protection: Response time | Response time measured from dispatch of emergency vehicles to arrival at the scene of the fire. | The Beaver City Fire Service District shall be capable of providing an adequate response time as follows: For development proposals in the Urbanizing Area, Planned Urbanizing Area and Future Urbanizing Area, a maximum response time of * minutes and an average response time of * minutes. For development proposals in the Rural Area, a response time of * minutes. | | | | | | | | | | | | | | | | | | | | |
| Fire Protection: Water capacity and pressure | Gallons per minute (g.p.m.), as measured by the Insurance Service Office, Fire Suppression Rating Schedule (New York, New York 1980), over an established duration (measure in hours). | Water systems shall be interconnected wherever possible in order to insure adequate fire protection. Water systems serving a proposed development shall be adequately sized and have sufficient pressure to provide needed fire flow as determined by the methodology set forth in the <i>Fire Suppression Rating Schedule</i> , for a period of time measured as follows: <table border="0"> <thead> <tr> <th><u>Capacity Needed (g.p.m.)</u></th> <th><u>Hours</u></th> </tr> </thead> <tbody> <tr> <td>1,000-2,999</td> <td>2</td> </tr> <tr> <td>3,000-3,999</td> <td>3</td> </tr> <tr> <td>4,000-4,999</td> <td>4</td> </tr> <tr> <td>5,000-5,999</td> <td>5</td> </tr> <tr> <td>6,000-6,999</td> <td>6</td> </tr> <tr> <td>7,000-7,999</td> <td>7</td> </tr> <tr> <td>8,000-8,999</td> <td>8</td> </tr> <tr> <td>9,000-9,999</td> <td>9</td> </tr> <tr> <td>10,000+</td> <td>10</td> </tr> </tbody> </table> | <u>Capacity Needed (g.p.m.)</u> | <u>Hours</u> | 1,000-2,999 | 2 | 3,000-3,999 | 3 | 4,000-4,999 | 4 | 5,000-5,999 | 5 | 6,000-6,999 | 6 | 7,000-7,999 | 7 | 8,000-8,999 | 8 | 9,000-9,999 | 9 | 10,000+ | 10 |
| <u>Capacity Needed (g.p.m.)</u> | <u>Hours</u> | | | | | | | | | | | | | | | | | | | | | |
| 1,000-2,999 | 2 | | | | | | | | | | | | | | | | | | | | | |
| 3,000-3,999 | 3 | | | | | | | | | | | | | | | | | | | | | |
| 4,000-4,999 | 4 | | | | | | | | | | | | | | | | | | | | | |
| 5,000-5,999 | 5 | | | | | | | | | | | | | | | | | | | | | |
| 6,000-6,999 | 6 | | | | | | | | | | | | | | | | | | | | | |
| 7,000-7,999 | 7 | | | | | | | | | | | | | | | | | | | | | |
| 8,000-8,999 | 8 | | | | | | | | | | | | | | | | | | | | | |
| 9,000-9,999 | 9 | | | | | | | | | | | | | | | | | | | | | |
| 10,000+ | 10 | | | | | | | | | | | | | | | | | | | | | |
| Schools: | Spaces per capita (permanent population only) | As recommended by the Beaver County School District. | | | | | | | | | | | | | | | | | | | | |

Appendix B - Census Data

1990 Census of Population and Housing

040 Utah
160 Beaver city

URBAN AND RURAL RESIDENCE

Total population 1,998
Urban population 0
Percent of total population 0.0
Rural population 1,998
Percent of total population 100.0
Farm population 0

RESIDENCE IN 1985

Persons 5 years and over 1,839
Lived in same house 1,222
Lived in different house in U.S. 617
Same State 509
Same county 355
Different county 154
Different State 108
Lived abroad 0

CHILDREN EVER BORN PER 1,000

WOMEN

Women 15 to 24 years 359
Women 25 to 34 years 2,427
Women 35 to 44 years 3,640

NATIVITY AND PLACE OF BIRTH

Native population 1,963
Percent born in state of residence . . . 83.5
Foreign-born population 35
Entered the U.S. 1980 to 1990 14

LANGUAGE SPOKEN AT HOME

Persons 5 years and over 1,839
Speak a language other than
English 110
Do not speak English 'very well' 32
Speak Spanish 69
Do not speak English 'very well' 20
Speak Asian or Pacific Island language 12
Do not speak English 'very well' 3

SCHOOL ENROLLMENT

Persons 3 years and over enrolled in
school 654
Preprimary school 50

Elementary or high school 555
Percent in private school 0.7
College 49

EDUCATIONAL ATTAINMENT

Persons 25 years and over 1,123
Less than 9th grade 40
9th to 12th grade, no diploma 136
High school graduate 491
Some college, no degree 288
Associates degree 45
Bachelor's degree 102
Graduate or professional degree 21

Percent high school graduate or higher 84.3
Percent bachelor's degree or higher . . 11.0

DISABILITY OF CIVILIAN

NONINSTITUTIONALIZED PERSONS

Persons 16 to 64 years 1,030
With a mobility or self-care
limitation 8
With a mobility limitation 6
With a self-care limitation 2
With a work disability 96
In labor force 51
Prevented from working 34
Persons 65 years and over 284
With a mobility or self-care limitation . . . 30
With a mobility limitation 24
With a self-care limitation 17

VETERAN STATUS

Civilian veterans 16 years and over . . . 197
65 years and over 72

INCOME IN 1989

Households 646
Less than \$5,000 44
\$5,000 to \$9,999 96
\$10,000 to \$14,999 72
\$15,000 to \$24,999 169
\$25,000 to \$34,999 122
\$35,000 to \$49,999 95
\$50,000 to \$74,999 35
\$75,000 to \$99,999 5
\$100,000 to \$149,999 4
\$150,000 or more 4
Median household income(dollars) . . 20,893

| | |
|---|--------|
| Families | 484 |
| Less than \$5,000 | 10 |
| \$5,000 to \$9,999 | 35 |
| \$10,000 to \$14,999 | 46 |
| \$15,000 to \$24,999 | 146 |
| \$25,000 to \$34,999 | 117 |
| \$35,000 to \$49,999 | 86 |
| \$50,000 to \$74,999 | 31 |
| \$75,000 to \$99,999 | 5 |
| \$100,000 to \$149,999 | 4 |
| \$150,000 or more | 4 |
| Median family income (dollars) | 25,403 |
| Nonfamily household | 162 |
| Less than \$5,000 | 34 |
| \$5,000 to \$9,999 | 64 |
| \$10,000 to \$14,999 | 26 |
| \$15,000 to \$24,999 | 24 |
| \$25,000 to \$34,999 | 3 |
| \$35,000 to \$49,999 | 7 |
| \$50,000 to \$74,999 | 4 |
| \$75,000 to \$99,999 | 0 |
| \$100,000 to \$149,999 | 0 |
| \$150,000 or more | 0 |
| Median nonfamily household income (dollars) | 7,901 |
| Per capita income (dollars) | 8,435 |
| INCOME TYPE IN 1989 | |
| Households | 646 |
| With wage and salary income | 444 |
| Mean wage and salary income (dollars) | 23,276 |
| With nonfarm self-employment income | 123 |
| Mean nonfarm self-employment income (dollars) | 16,589 |
| With farm self-employment income | 42 |
| Mean farm self-employment income (dollars) | 15,748 |
| With Social Security income | 241 |
| Mean Social Security income (dollars) | 7,120 |
| With public assistance income | 39 |
| Mean public assistance income (dollars) | 2,561 |
| With retirement income | 84 |
| Mean retirement income (dollars) | 7,309 |
| POVERTY STATUS IN 1989 | |
| All persons for whom poverty status is determined | 1,970 |

| | |
|--|-------|
| Below poverty level | 278 |
| Persons 18 years and over | 1,234 |
| Below poverty level | 173 |
| Persons 65 years and over | 284 |
| Below poverty level | 44 |
| Related children under 18 years | 736 |
| Below poverty level | 105 |
| Related children under 5 years | 159 |
| Below poverty level | 31 |
| Related children 5 to 17 years | 577 |
| Below poverty level | 74 |
| Unrelated individuals | 178 |
| Below poverty level | 52 |
| All families | 484 |
| Below poverty level | 54 |
| With related children under 18 years | 273 |
| Below poverty level | 34 |
| With related children under 5 years | 124 |
| Below poverty level | 25 |
| Female householder families | 29 |
| Below poverty level | 11 |
| With related children under 18 years | 15 |
| Below poverty level | 7 |
| With related children under 5 years | 5 |
| Below poverty level | 5 |
| Percent below poverty level: | |
| ----- | |
| All persons | 14.1 |
| Persons 18 years and over | 14.0 |
| Persons 65 years and over | 15.5 |
| Related children under 18 years | 14.3 |
| Related children under 5 years | 19.5 |
| Related children 5 to 17 years | 12.8 |
| Unrelated individuals | 29.2 |
| All families | 11.2 |
| With related children under 18 years | 12.5 |
| With related children under 5 years | 20.2 |
| Female householder families | 37.9 |
| With related children under 18 years | 46.7 |
| With related children under 5 years | 100.0 |
| MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS | |
| Specified owner-occupied housing units | 479 |
| With a mortgage | 224 |

| | |
|--------------------|-----|
| Less than \$300 | 18 |
| \$300 to \$499 | 119 |
| \$500 to \$699 | 63 |
| \$700 to \$999 | 22 |
| \$1,000 to \$1,499 | 2 |
| \$1,500 to \$1,999 | 0 |
| \$2,000 or more | 0 |
| Median (dollars) | 460 |
| Not mortgaged | 255 |
| Less than \$100 | 18 |
| \$100 to \$199 | 195 |
| \$200 to \$299 | 42 |
| \$300 to \$399 | 0 |
| \$400 or more | 0 |
| Median (dollars) | 163 |

SELECTED MONTHLY OWNER COSTS
AS A PERCENTAGE OF HOUSEHOLD
INCOME IN 1989

| | |
|---|-----|
| Specified owner-occupied housing units | 479 |
| Less than 20 percent | 293 |
| 20 to 24 percent | 54 |
| 25 to 29 percent | 44 |
| 30 to 34 percent | 27 |
| 35 percent or more | 61 |
| Not computed | 0 |

GROSS RENT

| | |
|---|-----|
| Specified renter-occupied housing units | 106 |
| Less than \$200 | 25 |
| \$200 to \$299 | 33 |
| \$300 to \$499 | 35 |
| \$500 to \$749 | 6 |
| \$750 to \$999 | 0 |
| \$1,000 or more | 0 |
| No cash rent | 7 |
| Median (dollars) | 257 |

GROSS RENT AS A PERCENTAGE OF
HOUSEHOLD INCOME IN 1989

| | |
|---|-----|
| Specified renter-occupied housing units | 106 |
| Less than 20 percent | 44 |
| 20 to 24 percent | 5 |
| 25 to 29 percent | 16 |
| 30 to 34 percent | 6 |
| 35 percent or more | 28 |
| Not computed | 7 |

LABOR FORCE STATUS

| | |
|---------------------------|-------|
| Persons 16 years and over | 1,340 |
| In labor force | 781 |
| Percent in labor force | 58.3 |
| Civilian labor force | 779 |

| | |
|--------------------|-----|
| Employed | 748 |
| Unemployed | 31 |
| Percent unemployed | 4.0 |
| Armed Forces | 2 |
| Not in labor force | 559 |

| | |
|-------------------------|------|
| Males 16 years and over | 638 |
| In labor force | 455 |
| Percent in labor force | 71.3 |
| Civilian labor force | 453 |
| Employed | 435 |
| Unemployed | 18 |
| Percent unemployed | 4.0 |
| Armed Forces | 2 |
| Not in labor force | 183 |

| | |
|---------------------------|------|
| Females 16 years and over | 702 |
| In labor force | 326 |
| Percent in labor force | 46.4 |
| Civilian labor force | 326 |
| Employed | 313 |
| Unemployed | 13 |
| Percent unemployed | 4.0 |
| Armed Forces | 0 |
| Not in labor force | 376 |

| | |
|---|------|
| Females 16 years and over | 702 |
| With own children under 6 years | 130 |
| Percent in labor force | 60.0 |
| With own children 6 to 17 years only | 144 |
| Percent in labor force | 67.4 |

| | |
|---|-----|
| Own children under 6 years in families and subfamilies | 186 |
| All parents present in household in labor force | 95 |

| | |
|---|-----|
| Own children 6 to 17 years in families and subfamilies | 544 |
| All parents present in household in labor force | 332 |

| | |
|--|-----|
| Persons 16 to 19 years | 144 |
| Not enrolled in school and not high school graduate | 8 |
| Employed or in Armed Forces | 5 |
| Unemployed | 3 |
| Not in labor force | 0 |

COMMUTING TO WORK

| | |
|---------------------------|------|
| Workers 16 years and over | 741 |
| Percent drove alone | 79.9 |
| Percent in carpools | 9.2 |

| | |
|---|-----|
| Percent using public transportation | 0.0 |
| Percent using other means | 0.5 |
| Percent walked or worked at home | 9.4 |
| Mean travel time to work (minutes) | 9.5 |

OCCUPATION

| | |
|--|-----|
| Employed persons 16 years and over | 748 |
| Executive, administrative, and managerial occupations | 72 |
| Professional specialty occupations | 62 |
| Technicians and related support occupations | 16 |
| Sales occupations | 99 |
| Administrative support occupations, including clerical | 71 |
| Private household occupations | 0 |
| Protective service occupations | 14 |
| Service occupations, except protective and household | 153 |
| Farming, forestry, and fishing occupations | 65 |
| Precision production, craft, and repair occupations | 78 |
| Machine operators, assemblers, and inspectors | 21 |
| Transportation and material moving occupations | 50 |
| Handlers, equipment cleaners, helpers, and laborers | 47 |

INDUSTRY

| | |
|--|-----|
| Employed person 16 years and over . | 748 |
| Agriculture, forestry, and fisheries | 72 |
| Mining | 3 |
| Construction | 51 |
| Manufacturing, nondurable goods | 37 |
| Manufacturing, durable goods | 7 |
| Transportation | 32 |
| Communications and other public utilities | 14 |
| Wholesale trade | 14 |
| Retail trade | 249 |
| Finance, insurance, and real estate . . . | 23 |
| Business and repair services | 23 |
| Personal services | 48 |
| Entertainment, and recreation services . . | 4 |
| Health services | 38 |
| Educational services | 62 |
| Other professional and related services | 27 |
| Public administration | 44 |

CLASS OF WORKER

| | |
|--|-----|
| Employed persons 16 years and over | 748 |
| Private wage and salary workers | 467 |
| Government workers | 173 |

| | |
|--------------------------------------|-----|
| Local government workers | 106 |
| State government workers | 40 |
| Federal government workers | 27 |
| Self-employed workers | 101 |
| Unpaid family workers | 7 |

| | |
|-------------------------------|-----|
| Total housing units | 775 |
|-------------------------------|-----|

YEAR STRUCTURE BUILT

| | |
|------------------------------|-----|
| 1989 to March 1990 | 4 |
| 1985 to 1988 | 29 |
| 1980 to 1984 | 89 |
| 1970 to 1979 | 204 |
| 1960 to 1969 | 53 |
| 1950 to 1959 | 36 |
| 1940 to 1949 | 59 |
| 1939 or earlier. | 301 |

BEDROOMS

| | |
|------------------------------|-----|
| No bedroom | 2 |
| 1 bedroom. | 55 |
| 2 bedrooms | 205 |
| 3 bedrooms | 316 |
| 4 bedrooms | 135 |
| 5 or more bedrooms | 62 |

SELECTED CHARACTERISTICS

| | |
|--|---|
| Lacking complete plumbing facilities | 8 |
| Lacking complete kitchen facilities | 8 |
| Condominium housing units. | 0 |

SOURCE OF WATER

| | |
|--|-----|
| Public system or private company | 775 |
| Individual drilled well | 0 |
| Individual dug well. | 0 |
| Some other source. | 0 |

SEWAGE DISPOSAL

| | |
|----------------------------------|-----|
| Public sewer | 766 |
| Septic tank or cesspool. | 7 |
| Other means. | 2 |

| | |
|----------------------------------|-----|
| Occupied housing units | 657 |
|----------------------------------|-----|

HOUSE HEATING FUEL

| | |
|------------------------------------|-----|
| Utility gas. | 0 |
| Bottled, tank, or LP gas | 32 |
| Electricity. | 179 |
| Fuel oil, kerosene, etc | 206 |
| Coal or coke | 63 |
| Wood | 177 |
| Solar energy | 0 |
| Other fuel | 0 |
| No fuel used | 0 |

| | |
|----------------------------------|-----|
| YEAR HOUSEHOLDER MOVED INTO UNIT | |
| 1989 to March 1990 | 87 |
| 1985 to 1988 | 153 |
| 1980 to 1984 | 83 |

| | |
|-----------------------|-----|
| 1970 to 1979 | 139 |
| 1960 to 1969 | 69 |
| 1959 or earlier | 126 |

| | |
|----------------------------|----|
| TELEPHONE | |
| No telephone in unit | 34 |

| | |
|------------------------------|-----|
| VEHICLES AVAILABLE | |
| Occupied housing units | 657 |
| None | 37 |
| 1 | 130 |
| 2 | 300 |
| 3 or more | 190 |

Appendix C - Existing Land Uses by Acreage

Table 12 - Existing Land Uses¹²

| # of Acres | Land Use Category | % Total Area | % Built Area | % Unbuilt Area |
|---------------|----------------------------|---------------|---------------|----------------|
| | Residential | | | |
| 290.69 | Single Family | 33.39 | 40.30 | |
| 2.60 | Multi Family | 0.29 | 0.36 | |
| 12.41 | Trailer/MHP | 1.42 | 1.72 | |
| | Commercial/Ind | | | |
| .92 | Neighborhood | 0.10 | 0.12 | |
| 45.00 | General | 5.17 | 6.23 | |
| 1.80 | Intense | 0.20 | 0.24 | |
| 3.72 | Industrial | 0.42 | 0.51 | |
| 11.40 | Motel | 1.30 | 1.58 | |
| | Public/Quasi Public | | | |
| 7.38 | Church | 0.84 | 1.02 | |
| 15.66 | School | 1.79 | 2.17 | |
| 7.20 | Park | 0.82 | 0.99 | |
| 18.60 | Cemetery | 2.13 | 2.57 | |
| 1.60 | Public Building | 0.11 | 0.22 | |
| 1.37 | Quasi Public Building | 0.15 | 0.18 | |
| 2.21 | Public Safety Facility | 0.25 | 0.30 | |
| 3.03 | Medical Facility | 0.34 | 0.42 | |
| | Agriculture | | | |
| 75.15 | Agriculture | 8.63 | | 50.41 |
| | Other | | | |
| 73.91 | Unimproved | 8.49 | | 49.59 |
| 244.53 | Roadway | 28.09 | 33.90 | |
| 3.76 | Parking Lot | 0.43 | 0.52 | |
| 870.37 | Total | 100.00 | 100.00 | 100.00 |

¹²Survey conducted by the Five County Association of Governments & the Beaver City General Plan Task Force

| # of Acres | Land Use Category | % Total Area | % Built Area | % Unbuilt Area |
|-------------------|--------------------------|---------------------|---------------------|-----------------------|
| 305.70 | Total Residential | 35.12 | 42.38 | |
| 244.53 | Total Roadway | 28.09 | 33.90 | |
| 171.08 | Total All Other (built) | 19.65 | 23.71 | |
| 149.06 | Total All Other(unbuilt) | 17.12 | | 100.00 |
| 870.37 | Total Land Area | 100.00 | 100.00 | 100.00 |

Appendix D - Future Service Demand

Future Service Demand:

By classifying and projecting the total population by the types of age-specific services each group consumes, the city can adopt goals and policies now that will enable it to adequately deal with the increased future demands in areas such as child care, education, employment and health care.

0-4 Day care and preschool users.

5-17 In addition to after-school day care, all children must have access to tot lots, play fields, public schools and libraries for their development. Adolescents between the ages of 15-17 impact the higher schools, local transportation systems, public parks and recreational facilities.

18-29 Those individuals between 18-29 are college bound and/or entering the labor force. Access to employment, multifamily housing, restaurants, entertainment, recreation and even laundromats is imperative.

30-39 In light of surging home prices, the 30-39 year age group represents the first time home buyers of the 1990's. Necessary proximate services include supermarkets, shopping centers, churches and banks. The desirability of the area hinges upon the perceived quality of schools, employment opportunities, and the surrounding housing values.

40-64 The 40-49 year olds will be in their prime earning and spending years and as a group represents the second or "move up" housing market. Access to the services listed above is necessary in addition to restaurants, cultural events and recreational opportunities. Persons in the 50-64 age group are well-established and usually do not make a change of residences until after retirement, if then. Cultural events, leisure recreation opportunities and commercial centers also attract person in this age group.

65+ Research has proven that most people will choose to stay in their single-family homes as long as possible. Those who do move, however, seek smaller maintenance-free homes in communities where their grown children live. Golf course communities are becoming increasingly popular among the more affluent retirees. The sheer growth of persons 75 years of age or older takes on special significance because of this age categories relationship to health and social services in the planning area. Persons over 75 years of age are heavy users of the health care system and other institutional and non-institutional care services. The need for additional health care services on a daily basis usually draws seniors, specifically those over 75, to congregate to some form of care retirement housing.

0-4 Age Group

The 0-4 age group in Beaver County represents the users of child care, preschool and parks. Mothers of children of all ages have continued to increase their participation in the labor force in order to meet escalating housing costs. This trend will continue, particularly where housing market prices are driven up from many buyers living outside the region. Given the already high proportions of young children in Beaver County, pressure for child care space and public parks

will mount. The pressure for child care that families put on the marketplace is, and will increasingly be, perceived by employers, particularly those who depend upon a nonexpendable, highly skilled work force for whom child care is an issue. Policymakers, too, over time, will increasingly be pressured by constituents and advocates to adopt public action that will increase child care space.

5-17 Age Group

The 5-17 age groups roughly correspond to the "school age" years. Elementary school students are typically between the ages of 5-11. Children ages 12-13 attend junior high schools and those 14-17 are at the high school level. The population projections indicate that in 1990, 1,348 persons or 28.3 percent of the total population will be between the years of five and 17 years of age. The sheer number of persons within this age category will increase to a total of 1,522 by the year 2020, which would require approximately 51 class rooms to accommodate a teacher to student ratio of 1:30. However, this age group's proportionate share of the population will decrease from 28.3 percent of the population in 1990 to 23.4 in the year 2020 .

18-29 Age Group

In times past, if you were not married, with child, and living in your own home by 30, you were perceived as "different" from mainstream society. Today, the trend is to delay marriage until one's career path is well-defined and college is increasingly part of that process. Delays in earning capacity coupled with soaring housing prices prolong one's ability to attain the "American Dream." These trends impact Beaver County in two very important ways: (1) access to higher education; and (2) increasing demand for employment opportunities and affordable housing.

The estimated population between 18-29 years of age in 1990 is 533 persons with a projected growth rate of 74 percent over the next 30 years. As a percentage of the total population in 1990, approximately 11.2 percent fall into this age group, which is predicted to increase as a proportionate share of the population to 14.3 percent in 2020. The 18-29 age group plays a particularly important role in the shaping of Beaver County's future: namely, these young adults represent the future parents and educated professionals of Beaver County. However, this age category is characteristically "on the move," and will be drawn towards population centers offering higher education or areas considered "job rich." If there is an insufficient supply of employment opportunities, persons in this age category are more likely than persons in older age groups to seek more suitable locations. Because this age group contributes greatly to the total expenditures at fast-food chains, convenience stores, and entertainment centers--all tax revenue generating enterprises -- and, represents an invaluable source of semi-professional jobs, Beaver County should make every effort to secure its appeal among these individuals.

30-39 Age Group

Projections for the 30-39 age group suggest that between the year 1990 and the year 2020, this group will increase in total numbers by 18.7 percent. However, as a percentage of the total population this age category will only make up 11.4 percent of the total population by the year 2020. Realistically, today's home prices suggest that the majority of first-time home buyers will fall into this age group. According to the 1990 U.S. Census of Population and Housing, the average cost for a single-family home in Beaver County was \$51,200. These data reveal that the current housing cost affordability index within the County is relatively healthy, due to a sluggish local market related to out-migration.

Mathematically, first time single-family home buyers with 10 percent down (\$10,000), at 10 percent financing on a \$51,200 home (excluding tax and homeowners association fees), require

an annual income of approximately \$16,704 to qualify (if little other consumer debt exists). The 1990 Census data estimates the average household income at \$21,092--well above the qualifying index. Like many other communities in Southwestern Utah, the first time home buyers in Beaver County will typically be double income households comprised of individuals who have been working for some time - - those over 30 years of age.

As Individuals are increasingly being forced to choose between the county's desirable location or other areas that offer better employment or access to higher education the 30-39 age group will leave or bypass Beaver County and flood to other areas of the State and region that are both "job rich" and "housing rich."

40-64 Age Group

The population between the ages of 40 and 64 will increase from 1102 persons in 1990 to 1,535 in 2020. Persons in this age range are in their peak earning and spending years. For reasons discussed in detail above, the 40-49 age group constitutes Beaver County's future second or "move up" home buyers market. These buyers seek upscale housing with many extras. However, as that 73 percent of these persons will fall into the 50-64 age category, and have already purchased their "move up" home, the move up housing market will not be driven by the local population.

The 50-64 year olds generally have good health and are about as active as they desire to be. Income levels in this age category are generally 15-20 percent higher than the median income for all households. Beaver County must be committed to the development of community amenities in order to meet the leisure and recreational needs of this market segment. Weak retention efforts will facilitate these age groups to take advantage of intervening opportunities offered elsewhere in the region.

65+ Age Group

Within Beaver County, the growing number of elderly population should be of concern to health and service planners, and to the taxpayers. In terms of actual growth, the population of 65 or older persons will grow approximately 59.4 percent from 1990 to the year 2020. In actual numbers, this age group will grow 460 persons over the next 30 years. It is easy to generate worst case scenarios of disastrous impact on public funds for health care and social services and a reduced quality of life for families' older relatives. In this atmosphere of fear, even early retirees are seen as a potential burden on the community, a stigma that sometimes reinforces negative responses toward the aged.

In all, 11 percent of the Gross National Product (GNP) is consumed by health-care expenditures and growth of these expenditures has exceeded inflation rates. Those over age 65, who make up 11 percent of the population, account for one third of the total health care consumption in the U.S. In this general age category, those over 85 use hospitals at a rate that is 77 percent higher than those age 65-74 and 23 percent higher than those between the age of 75 and 84 (U.S. Senate Special Committee on Ageing, 1984). By the year 2020 only two percent of this age group's population is anticipated to be 85 years of age or older.

Although current research suggests that older Americans have financial assets and net worth far out of proportion to their population share, the county must be prepared to address the health care and housing needs of a growing number of elderly who may not be as financially secure.

HOUSING

The majority of housing in Beaver County is single family residential. According to the 1990 Census, 78.8 percent of all housing units in the county were comprised of single-family dwellings. This was equivalent to 1,733 housing units. Of the 2,200 dwelling units in the county, 79 percent fall within municipal boundaries. If the current ratio of dwelling units contained within the county is held constant through the next 20 years, the county's estimated housing needs are quite small.

Although single family detached homes still account for the majority of housing units (78.8%), the proportion of these units has decreased since 1980, where over 90% of all housing stock was of a single-family nature. There has been a steady increase in the proportion of multiple-family units to single-family units, including both smaller (two or four units) and larger (five or more units) building, in the past ten years. The number of multiple-family units in the planning area has increased by more than 5 % during the past ten years. Both the number and proportion of mobile homes in the county increased over 1980 levels, a typical trend in slow developing areas. According to the 1990 Census, there were 260 mobile homes in the planning area. Although the number of mobile homes is expected to continue to increase, several communities within the planning area have adopted more stringent ordinances in regards to design. Such ordinances include provisions for pitched roofs, non-reflective siding, and recessed foundations.

In an effort to identify the county's target distribution of housing types with the projected population growth, the county's total population can be separated into three general categories: (1) single family detached units; (2) single-family attached units; and (3) multi-family units:

TABLE 1.

Table 17 - Beaver County Population Projections by Age Group 1990-2020

| <u>Age</u> | <u>1990</u> | <u>%</u> | <u>2000</u> | <u>%</u> | <u>2010</u> | <u>%</u> | <u>2020</u> | <u>%</u> |
|-------------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| 0-4 | 382 | 08.0 | 507 | 10.6 | 644 | 10.4 | 540 | 08.3 |
| 5-17 | 1,348 | 28.3 | 1,030 | 19.0 | 1,339 | 21.6 | 1,522 | 23.4 |
| 18-29 | 533 | 11.2 | 1,123 | 20.7 | 908 | 14.6 | 928 | 14.3 |
| 30-39 | 625 | 13.1 | 467 | 08.6 | 963 | 15.5 | 742 | 11.4 |
| 40-49 | 482 | 10.1 | 596 | 11.0 | 205 | 03.3 | 408 | 06.0 |
| 50-64 | 620 | 13.0 | 654 | 12.1 | 1,052 | 16.9 | 1,127 | 17.6 |
| <u>65+</u> | <u>775</u> | <u>16.3</u> | <u>1,040</u> | <u>19.2</u> | <u>1,099</u> | <u>17.7</u> | <u>1,235</u> | <u>19.0</u> |
| Total | | | | | | | | |
| Pop | 4,765 | | 5,417 | | 6,210 | | 6,502 | |

Category 1 Age Groups Category 2 Age Groups Category 3 Age Groups
 0-17, 40-49, 50-74 Ages 30-39, and 75+ 18-29

These age group populations can then be divided by the Census estimate of persons per household: 2.95 for single-family detached and single-family attached, and 2.1 for multi-family units to estimate a 30 year build-out by unit type. Using the methodology above, the county's future housing needs can be roughly estimated at : (1) 1,204 Single-family detached units (2) 454 Single-family attached, and (3) 441 multi-family units. Applying the following formula: Ideal Number of Housing Units= [Total Jobs/Workers per Household] x [1+5% (Desired Vacancy Rate)] , yields the following jobs to housing balance (if housing prices are commensurate with wages):

$$2,099 \text{ Dwelling Units} = (2,618 \text{ New Jobs} / 1.31 \text{ Workers Per Household}) \times 1.05 \text{ (Desired Vacancy Rate)}.$$

The private sector should be encouraged to development of such housing as may be necessary to meet demands.

Appendix E - Population Projections

Table 16 - Beaver County Population Projections By Sex and Five Year Age Group

| Male | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Age | 1980 | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
| 0-4 | 287 | 181 | 201 | 261 | 314 | 333 | 301 | 279 |
| 5-9 | 230 | 260 | 182 | 202 | 256 | 315 | 323 | 292 |
| 10-14 | 189 | 288 | 234 | 182 | 198 | 256 | 307 | 314 |
| 15-19 | 180 | 210 | 258 | 205 | 161 | 177 | 225 | 268 |
| 20-24 | 143 | 93 | 203 | 235 | 185 | 150 | 154 | 195 |
| 25-29 | 150 | 109 | 150 | 240 | 268 | 221 | 166 | 174 |
| 30-34 | 133 | 145 | 100 | 151 | 230 | 268 | 209 | 156 |
| 35-39 | 100 | 164 | 136 | 102 | 146 | 230 | 257 | 200 |
| 40-44 | 84 | 130 | 160 | 131 | 96 | 142 | 217 | 240 |
| 45-49 | 87 | 118 | 134 | 156 | 128 | 96 | 136 | 207 |
| 50-54 | 104 | 84 | 119 | 133 | 151 | 126 | 91 | 132 |
| 55-59 | 94 | 97 | 85 | 117 | 128 | 147 | 120 | 87 |
| 60-64 | 130 | 118 | 87 | 84 | 109 | 121 | 139 | 113 |
| 65-69 | 96 | 111 | 123 | 97 | 94 | 120 | 131 | 146 |
| 70-74 | 79 | 105 | 125 | 135 | 113 | 113 | 135 | 145 |
| 75-79 | 46 | 58 | 105 | 116 | 124 | 107 | 107 | 126 |
| 80-84 | 35 | 43 | 53 | 77 | 86 | 92 | 80 | 80 |
| 85+ | 14 | 19 | 31 | 41 | 57 | 68 | 74 | 70 |
| Total | 2,181 | 2,333 | 2,486 | 2,665 | 2,844 | 3,082 | 3,172 | 3,224 |
| Median | 26 | 29 | 29 | 29 | 29 | 30 | 31 | 31 |

| Female | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Age | 1980 | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
| 0-4 | 263 | 201 | 188 | 246 | 295 | 311 | 283 | 261 |
| 5-9 | 234 | 267 | 188 | 188 | 238 | 296 | 302 | 275 |
| 10-14 | 163 | 258 | 259 | 188 | 186 | 240 | 287 | 294 |
| 15-19 | 160 | 185 | 251 | 249 | 176 | 179 | 225 | 270 |
| 20-24 | 147 | 93 | 212 | 241 | 228 | 169 | 164 | 206 |
| 25-29 | 141 | 118 | 97 | 223 | 244 | 244 | 171 | 162 |
| 30-34 | 128 | 166 | 113 | 100 | 217 | 247 | 232 | 163 |
| 35-39 | 104 | 150 | 158 | 114 | 96 | 218 | 236 | 223 |
| 40-44 | 85 | 127 | 153 | 156 | 109 | 95 | 207 | 225 |
| 45-49 | 102 | 107 | 132 | 153 | 151 | 109 | 93 | 201 |
| 50-54 | 101 | 88 | 114 | 128 | 149 | 151 | 106 | 90 |
| 55-59 | 101 | 121 | 87 | 109 | 126 | 148 | 146 | 102 |
| 60-64 | 123 | 112 | 110 | 83 | 104 | 122 | 141 | 138 |
| 65-69 | 100 | 109 | 124 | 119 | 93 | 114 | 131 | 148 |
| 70-74 | 90 | 110 | 123 | 138 | 132 | 110 | 131 | 146 |
| 75-79 | 72 | 88 | 113 | 122 | 136 | 132 | 114 | 134 |
| 80-84 | 50 | 76 | 85 | 101 | 108 | 119 | 106 | 101 |
| 85+ | 33 | 56 | 80 | 94 | 111 | 124 | 137 | 139 |
| Total | 2,197 | 2,432 | 2,587 | 2,752 | 2,899 | 3,128 | 3,222 | 3,278 |
| Median | 28 | 31 | 33 | 31 | 30 | 31 | 32 | 34 |

| Age | Total | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1980 | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
| 0-4 | 550 | 382 | 389 | 507 | 609 | 644 | 584 | 540 |
| 5-9 | 464 | 527 | 370 | 390 | 494 | 611 | 625 | 567 |
| 10-14 | 352 | 546 | 493 | 370 | 384 | 496 | 594 | 608 |
| 15-19 | 340 | 395 | 509 | 454 | 337 | 356 | 450 | 538 |
| 20-24 | 290 | 186 | 415 | 476 | 413 | 319 | 318 | 401 |
| 25-29 | 291 | 227 | 247 | 463 | 512 | 465 | 337 | 336 |
| 30-34 | 261 | 311 | 213 | 251 | 447 | 515 | 441 | 319 |
| 35-39 | 204 | 314 | 294 | 216 | 242 | 448 | 493 | 423 |
| 40-44 | 169 | 257 | 313 | 287 | 205 | 237 | 424 | 465 |
| 45-49 | 189 | 225 | 266 | 309 | 279 | 205 | 229 | 408 |
| 50-54 | 205 | 172 | 233 | 261 | 300 | 277 | 197 | 222 |
| 55-59 | 195 | 218 | 172 | 226 | 254 | 295 | 266 | 189 |
| 60-64 | 253 | 230 | 197 | 167 | 213 | 243 | 280 | 251 |
| 65-69 | 196 | 220 | 247 | 216 | 187 | 234 | 262 | 294 |
| 70-74 | 169 | 215 | 248 | 273 | 245 | 223 | 266 | 291 |
| 75-79 | 118 | 146 | 218 | 238 | 260 | 239 | 221 | 260 |
| 80-84 | 85 | 119 | 138 | 178 | 194 | 211 | 196 | 181 |
| 85+ | 47 | 75 | 111 | 135 | 168 | 192 | 211 | 209 |
| Total | 4,378 | 4,765 | 5,073 | 5,417 | 5,743 | 6,210 | 6,394 | 6,502 |
| Median | 27 | 31 | 31 | 29 | 30 | 31 | 32 | 33 |

Appendix F - Infrastructure Assessment

Excerpts of Beaver County's Infrastructure Assessment

(Fire, Police, General Administration, Recreation and Streets)

Beaver City Assessment

Fire

Beaver County's Fire Station #1, which serves the east side of the county is located in Beaver City at 51 North and 100 East and is operated by Beaver County. Equipment and facilities available for fire protection include: three main-line military pumpers (one not in operation), two brush trucks, two tankers and one rescue truck (purchased within the last five years). The average response time per call for the Fire Department staff which includes one part-time fire chief and 23 volunteers, 15 of which are active, is excellent at three to four minutes.

Over the next five year time period, necessary equipment and facilities upgrades include building a new Fire Station and purchasing a pumper truck. Within five to ten years, necessary projected equipment and facilities improvements include: purchase a response truck. Additionally, about five to ten volunteers will be needed during the next ten years. The Station improvements are partially due to Utah State having declared that the fire station does not meet parking regulations and has insufficient street clearance. The existing fire station includes 7,200 square feet. is handicapped accessible. The fire insurance rating is "6".

Projected revenues are not sufficient to cover capital improvement costs for the next five years. The district needs additional funds to build a fire station. Funding source: general funds. However, projected revenues are sufficient to cover staff, operation and maintenance costs for the next five years. Funding source: general funds.

One of the Fire Station buildings is over 100 years old and has historical significance.

Police

Beaver City has a Police Station located at 60 West Center Street, which includes three fully equipped police cars and three police officers (including the Chief). Average response times for the department are excellent at two to three minutes.

Within the next five years it is anticipated that another police officer will be needed in the department. Beaver County Sheriff's Department also provides additional police protection.

Projected revenues are not sufficient to cover capital improvement costs for the next five years. Funding source: general funds.

Projected revenues are not sufficient to cover staff, operation and maintenance costs for the next five years. Funding source: general funds.

General Administration

Type: mayor/city council

Beaver City does not have a special improvement district.

Job positions: four electricians, two water department, two parks and cemetery, three police, one city manager, two librarians, one deputy recorder, one recorder, one building inspector, and one part-time building inspector. Volunteers: planning commission and city council.

Positions planned or needed to administer functions within the next five years: one police officer.

Though the city center located at 60 West Center Street is over 50 years old and is approximately 5,000 square feet, it is handicapped accessible.

Recreation

Types of recreational and cultural facilities: three community parks are located in Beaver City; Park (A) - playground, little league field and picnic tables; Park (B) - playground, two pavilions and picnic facilities, one softball field, one little league field and one indoor swimming pool; Park (C) - playground, softball field, rodeo grounds and two tennis courts (Restroom facilities in the parks are not handicapped accessible.). There is one mini-park adjacent to the Daughters of Utah Pioneers Museum. Two mini-parks are planned in approved subdivisions.

Other public recreational facilities in the community include: an opera house/civic center, senior center, library (in the process of building an addition), community center, nine-hole golf course, several basketball courts, D.U.P. museum and a horse track. Although there are no city-sponsored recreational events, there are adult softball tournaments and youth sport programs. Private recreational facilities in town include an arcade and an auto race track, The Cinema and Wild About Ducks Art Gallery.

Recreational facilities needed and desired within the next five years: indoor meeting facility (community gymnasium).

The opera house, library and the D.U.P. museum all have historical significance and are over 100 years old.

Roads and Streets

Arterial streets in Beaver include: Main Street, State Highway 21 and State Highway 153. All other existing streets are local. All streets have two lanes except eight blocks of Main Street that are four lanes. New streets planned within the next five years: two new subdivisions with local streets; and three collector streets implied already to connect subdivisions.

There are 24 miles of streets in Beaver. Of those twenty-four miles, twelve miles have been repaved during the past two years with the remaining twelve miles of to be repaved in 1995 and 1996. Half of the streets are considered in good condition and half are considered fair. The standard pavement width of each local street is 22' within a 99' ROW. No new roads have been built during the past five years.

Major accidents mainly occur on Main Street and at the intersection of Highway 21 and Main Street.

Projected revenues are sufficient to cover capital improvements, staff, operation and maintenance costs for the next five years. Funding sources: electrical generation and Class C funds.

The average number of daily traffic on selected locations in 1992 was as follows:

| | |
|--------------------------------|-----------------|
| North Main Street | 2,028 vehicles. |
| South Main Street | 2,403 vehicles. |
| Highway 21, east of Beaver | 1,653 vehicles. |
| Interstate 15, south of Beaver | 7,473 vehicles. |

Health Care

The Beaver Valley Hospital approximately 20,000 square feet in size offers 24 hour emergency, radiology, acute medical and surgical care, long-term care facility, home-health care, maternity and physical therapy and serves eastern Beaver County, northern Iron County, and Interstate 15 traffic within a 45 mile radius. This hospital is completely handicapped accessible.

Departments and professionals employed:

| Department | Number of Professionals |
|-----------------------|-------------------------|
| Administrators | 1 |
| Business Office | 7 |
| Radiology | 3 |
| Laboratory | 4 |
| Clinic in Parowan | 7 |
| Doctors | 2 |
| Physicians Assistants | 2 |
| Housekeeping | 5 |
| Long Term Care | 28 |
| Nursing | 30 |
| Physical Therapy | 2 |
| Maintenance | 2 |

Major facility upgrades made during the past five years: all departments have had or will have by the end of 1994, a complete capital review and upgrade.

Inpatients serviced during the last five calendar years:

| Year | 1988 | 1989 | 1990 | 1991 | 1992 |
|------------|------|------|------|------|------|
| Inpatients | 616 | 554 | 565 | 602 | 617 |

Currently there are 36 care beds at the hospital.

The hospital has no historical significance.

Type of medical facilities or upgrade of existing facilities planned or needed during the next ten years: a new acute wing and ancillary departments at an estimated cost of \$4.5 million; addition of long-term care beds at an estimated cost of \$2.5 million; resident care complex at an estimated cost of \$3.5 million. A new acute Beaver Valley Hospital may be constructed if there are sufficient funds available; if so, the long-term health care unit will replace the existing hospital.

Projected revenues are sufficient to cover capital improvement costs for the next five years.

However, the hospital will need grants, donations and funding for the new acute wing and other structural additions.

Projected revenues are sufficient to cover staff, operation and maintenance costs for the next five years. The administrator will probably want to hire an additional physician, a ward clerk and other nursing personnel.

Beaver Medical Clinic is a family practice clinic which is equipped to handle emergencies in addition to routine examinations and immunizations. The clinic has two doctors on staff.

Water Service

Utah State Water Standards

If a drinking water system will provide no water for the irrigation of lawns and gardens, an average yearly consumption of 400 gallons per day per connection should be assumed.

If a drinking water system will provide all water for the irrigation of lawns and gardens, an average yearly consumption of 800 gallons per day per connection should be assumed.

| Table 18 - Beaver County drinking water systems by jurisdiction | | | | |
|--|--|---------------------------------------|---------------------------|-------------------------|
| JURISDICTION | "AVERAGE" GALLONS USED DAILY PER WATER SYSTEM FOR THE "AVERAGE" UTAH WATER SYSTEM | GALLONS PER CONNECTION PER DAY | GALLONS USED DAILY | STORAGE CAPACITY |
| Beaver City | 604,800 | 520 | 682,013 | 1,250,000 |
| Milford | 380,400 | 735 | 461,726 | 1,900,000 |
| Minersville | 193,600 | 719 | 280,986 | 500,000 |

* "Average" gallons used daily per water system for the "average" Utah water system is higher than storage capacity.

** Gallons used per day is higher than storage capacity.

@ Some connections are used only a small amount throughout the year.

Beaver City has a certified operator at proper grade for the water system.

Major water facility and equipment upgrades performed in the past five years: installed one 250,000 gallon water tank, replaced water lines, installed a pressurized irrigation system and extended two water lines to both Interstate 15 interchanges.

Installed a pressurized irrigation system to conserve water.

Type of water facility and equipment upgrades needed or desired in the next ten years: a one-million gallon water tank and one main water supply line at an estimated cost of \$600,000, regular maintenance of water system and extension of water lines. Projected revenues are sufficient to cover staff, operation and maintenance costs for the next five years. Funding source: water fees. Projected revenues are not sufficient to cover capital improvement costs

for the next five years. Additional impact fees are needed. Current funding sources: water fees.

Schools (Beaver County School District)

The Beaver School District is in the process of replacing Milford and Beaver High Schools with new schools on new sites. Beaver High will be approximately 70,000 square feet with a total capacity of 600 students and Milford High will be approximately 40,000 square feet.

Major educational facilities upgraded during the past five years: Beaver County Vocational Facility added three additional classrooms; Milford Elementary remodeled the office area.

The school district will need to plan for population growth if hog production is established. Projected revenues for the next five years will not be sufficient to cover the additional education costs associated with a large population increase.

No schools require handicapped accessibility renovation.

Beaver High is over 50 years old. No other schools within the district have historical significance.

Major educational facilities upgraded during the past five years:

Beaver County Vocational Facility added three additional classrooms;

Milford Elementary remodeled the office area.

The district will continue to operate through the regular state and local school budgeting process.

| Table 19 - Graduates for Each High School Since 1988 - Percent and Number | | | | | | |
|--|-----|-----|------|-----|-----|--|
| Beaver High | | | | | | |
| Percent | 97% | 93% | 100% | 97% | 96% | |
| Number | 58 | 70 | 54 | 55 | 64 | |

| School/Location | Expenditure Per Student | Pupil/Teacher Ratio | Square Footage | Student Capacity | Teachers/Ad min. |
|---------------------------------|-------------------------|---------------------|----------------|------------------|------------------|
| Milford High (Milford) | \$4,674 | 16.9/1 | 104,650 | 635 | 10.5/1 |
| Beaver High (Beaver) | \$3,859 | 18.4/1 | 158,295 | 1,015 | 24.5/1.5 |
| Milford Elem. (Milford) | \$3,288 | 21.5/1 | 18,666 | 245 | 9/.5 |
| Minersville Elem. (Minersville) | \$2,517 | 17.6/1 | 12,552 | 165 | 8.5/Head Teacher |

| | | | | | |
|---------------------------|---------|--------|--------|-----|------|
| Belknap Elem. (Beaver) | \$2,791 | 24.9/1 | 35,987 | 480 | 17/1 |
|---------------------------|---------|--------|--------|-----|------|

* Includes the square footage for both the high school and the elementary school.

Solid Waste Disposal

The county has decided to utilize their existing landfill until 1996. The landfill serves the entire county. The existing Milford landfill is planned to be an inert bulky landfill for construction debris, trees, grass, animal pit, white goods and automobiles. Beaver County recycles tires, but has no plans for additional types of resource recovery and recycling. The county landfill has begun to spread dirt over the landfill everyday to eliminate vectors, rodents and fires.

The current cell (Beaver landfill) still has about one and a half years capacity, with approximately six more years of capacity on site for solid waste. The county is planning to purchase an additional 40-acre site which would add 60 more years of capacity.

The county landfill accumulated an average of about eight tons of solid waste daily during the past year.

The temporary landfill is located on a 40-acre site. The existing cell utilized is 40' x 500'. It complies with all provisions of Section 258 of Environmental Protection Agency (EPA) standards and will comply with all future requirements.

If the county landfill closed, solid waste would probably be disposed in the Armstrong (Iron County) landfill.

Projected revenues are sufficient to cover capital improvement costs for the next five years. Funding source: Service District #5. Projected revenues are sufficient to cover staff, operation and maintenance costs for the next five years. Funding sources: Service District #5 and mine lease funding.

Sewer

| Table 20 - Jurisdictions With Sewer Systems | | | | |
|--|---------------------------|--------------------------|--------------------------|-----------------------------|
| Jurisdiction | Present Flow (MGD) | Design Flow (MGD) | System | Current Needs Survey |
| Beaver County | | | | |
| Beaver City | 0.282 | 0.250 | Total Containment Lagoon | System OK |
| Milford | 0.130 | 0.240 | Total Containment Lagoon | System OK |
| Minersville | 0.035 | 0.081 | Total Containment Lagoon | System OK |

It appears that the water seepage losses for the 3 cells Beaver City is using are at the

maximum allowed by Utah Department of Environmental Quality; however, Beaver City has a total capacity of 4 cells or 0.439 MGD. Beaver City officials believe the sewer system can operate approximately an additional ten years with 4 cells.

County Sheriff

The sheriff's station serves the entire county including all three cities within Beaver County with a staff of four deputies, one dispatcher, five jailers and one administrator. The sheriff's station is handicapped accessible. It has no historical significance. The station is approximately 2,000 square feet. The average response time per call is four to five minutes.

One sheriff station is in Beaver City and one sheriff office with one deputy is located in Milford. The other deputies are located in Beaver City. The Beaver County Sheriff's Station has a dispatch center, six offices and a booking room.

Major facilities and equipment upgraded during the past five years: an enhanced emergency 911 system, a computer system and network, a work release program and exercise yard fences.

Facilities and equipment planned or desired within the next ten years: a new sheriff's facility if hog processing expands to capacity and if the population base expands; additional sheriff cars. Projected revenues are sufficient to cover capital improvements, staff, operation and maintenance costs for the next five years, unless the population expands significantly. Funding source: Beaver County general fund. Officers needed in the next ten years will depend on population growth.

County Jail

The jail has six cells. Each cell is double bunked and capacity is two prisoners per cell.

An average of 188 prisoners per year have been incarcerated within the jail during the past five years.

Facilities upgraded during the past five years: monitor/television room; and work release time.

The jail is handicapped accessible.

The jail has no historical significance.

Jail facilities and/or jail buildings planned or desired within ten years will depend on population increase. If a full-scale hog production (Smithfield Foods) is established, the jail facility will eventually need to double in size. Funding source: State Department of Corrections.

One jail cell in Milford has recently been closed down.

Court Facilities

The Beaver County Courthouse, within the Fifth Judicial District, is a two-story masonry building that houses the county clerks', auditor's and recorder's offices as well as other court functions. The courthouse serves the Beaver County District Court, Beaver County Juvenile Court and the Beaver County Justice Court. The facility also contains justice, district and attorney offices. Each court shares the same courtroom. The district court clerk also performs duties for the juvenile court. The jury room and the judge's chamber are adequate and efficient.. The internal access and circulation is relatively good.

Public access and security are marginal. Public access to the court facilities on the second floor is through the main lobby on the first floor and up the elevator or stairs and through the public corridor. Prisoners in custody also follow the same path.

The courthouse is handicapped accessible except for the restrooms.

The building meets code; however, there is no alarm system or sprinkling system.

The courthouse has no historical significance.

Courthouse facilities upgraded during the past five years: carpeting and repainting.

Court facilities planned or desired within the next ten years: additional office space, additional security, an additional courtroom and upgrade of restrooms to make handicapped accessible.

Court positions needed within the next ten years: probation officers for juvenile court, clerical positions for juvenile and district courts and work supervisors for juvenile court system.

Appendix G - Land Use Density/Intensity Policy

Table 13 - Density/Intensity and Policy Intent by Land Use Category

| # | Designation | Typical Density/Intensity | Policy Intent |
|----|-------------------------------|---------------------------|--|
| | Non-Urban Multiple Use | | |
| 1 | Critical/Sensitive Lands | 1 du/40 acres | Limited development in areas with environmental constraints |
| 2 | Agriculture | 1 du/40 acres | Residential development on large agricultural lots |
| | Residential | | |
| 4 | Very Low Density | 0-0.2 du/acre | Very low density single family development which allows the keeping of large animals |
| 5 | Low Density | 0-2.0 du/acre | Single family low density development |
| 6 | Medium Density | 2.0-4.0 du/acre | Single and multi family medium density residential development |
| 7 | High Density | 4.0-6.0 du/acre | Multi family high density residential development |
| | Commercial | | |
| 8 | Neighborhood | | Limited day to day shopping facilities |
| 9 | Community | | General commercial and professional offices |
| 10 | Highway Service | | Services oriented to the traveling public |
| | Industrial | | |
| 11 | Industrial | | Light, non-smoke stack industry |

Land Use Categories

A. Description of Categories

1. Critical/Sensitive Lands

Areas where development is discouraged due to steep hillsides (over 30%), high value wetlands, ridgelines, and floodplains. Agriculture and livestock grazing are permitted. Recreation amenities such as equestrian activities, trails and public open space are encouraged.

3. Agriculture

The Agriculture (A) category created to ensure preservation and continuation of existing agricultural farming and ranching uses within the city. Development in this category would be limited to one single-family home per legal lot and associated farm labor housing under appropriate permits. Lot sizes are intended to be in large acreages with minimum sizes of five (5) acres. Contiguous family owned land holdings may be considered in determining minimum lot sizes for agricultural operations within this designation. The uses expected in this category are expected to include farming, commercial raising of animals, agricultural intensive operations, repair and maintenance of farm equipment, storage of agricultural products and other similar uses related to the operation of a farm or ranch. The purpose of this designation will be to stimulate agricultural uses in these districts and make available agricultural use incentives such as preferential assessment or taxation and preferential densities, and to protect the property from encroaching by nuisance uses.

4. Residential Estates (RE)

Residential Estate (RE) is a category created to ensure the continuation of existing agricultural farming and ranching activities and to ensure the rural character of the planning area is maintained. The density of any development adjacent to agricultural zoning districts, should be maintained with larger lot sizes of five (5) acres. The keeping of large animals is intended to be allowed in this category. The density of proposed residential development is expected to be in large custom single-family homes on uniquely configured lots which have been designed to be sensitive to topographic and environmental considerations. Minimum lot sizes for large custom homes would be on one (5) acres.

5. Residential Very Low (RVL)

The Residential Very Low (RVL) is a single family detached category with a density ranging from 0-0.20 units per acre. The keeping of horses and related animals is generally not found in this category. Large custom single-family homes are expected to develop in this category.

Residential Low (RL)

Residential low (RL) is a single family detached category with a density range of 0-2 units per acre. Development is single family detached category to encourage moderate category corresponds to small groups of

7. Medium Density Residential Base Density = 2-4 unit/acre

Clustered, master planned developments are encouraged in the district. Interconnected

open space amenities through developments of this type assist to create conservation of available resources, as well as development of a Beaver City trail system.

8. High Density Residential Base Density = 4-10 units/acre

This area allows a variety of housing types, with proximity to schools, shopping areas, and major recreational facilities. This district can also be used as a transitional area between commercial uses and lower density residential area.

9. Commercial Uses

All commercial uses are intended to be located along Highway 91 and in the vicinity of the north and south Interstate 15 interchanges. Depending upon the location in that over all area commercial uses will be suited for highway service commercial, community or general commercial and neighborhood commercial. It is not the intent of this plan to designate specific areas, within the overall commercial boundaries, for these various uses. The plan will rely upon a consistent zoning ordinance for that purpose.

14. Light Industrial Uses

Light Industrial Uses shall include research and development, light industries, manufacturing, food production, distribution, storage, fabrication, assembly and servicing which will not create traffic hazards, noise, dust, fumes, odors, smoke, vapor, vibration, glare of industrial waste disposal problems.

Appendix H - Beaver/Cove Fort Soil Survey

Excerpts of Soil Survey of Beaver-Cove Fort Area, Utah, Parts of Beaver and Millard Counties

CHIPMAN SERIES

The Chipman series consists of deep, gently sloping, somewhat poorly drained soils on flood plains and river terraces. These soils formed in alluvium derived from intermediate igneous and sedimentary material. Chipman soils are in the meadow area between Beaver and Greenville. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 11 to 13 inches, and the frost-free period is 100 to 108 days. The vegetation is meadow grasses and sedges.

In a representative profile the surface layer is gray silty clay loam about 20 inches thick. The upper 10 to 20 inches of the underlying layer is gray to light-gray, firm, silty clay loam in which lime has accumulated. The lower part is gray to light-gray loam, clay loam, or silty clay loam.

On Chipman soils there is little or no erosion. The available water capacity is 9 1- 11 inches in a 5-foot profile. Permeability is slow. Roots can penetrate to a depth of more than 5 feet. The water table generally is between depths of 10 and 30 inches.

These soils are used for meadow hay and pasture. They are suitable for drainage and, if drained, are suited to all locally grown crops.

Representative profile of Chipman silty clay loam, 0.6 mile south and 2 ½ miles west of Beaver Post Office, 450 feet south of road, sec. 30, T.29 S., R. 7 W.

- A11- 0 to 6 inches, gray (10 YR 5/1) silty clay loam, very dark brown (10YR 2/2) when moist; weak, medium, granular structure; slightly hard, friable, slightly sticky and slightly plastic; many fine roots; few fine, tubular pores; moderately calcareous; mildly alkaline (pH 7.8); clear, wavy boundary.
- A12- 6 to 20 inches, gray (10YR 5/1) silty clay loam, very dark brown (10YR 2/2) when moist; moderate, medium, granular structure; slightly hard, friable, sticky and plastic; many fine roots; few fine, tubular pores; strongly calcareous; moderately alkaline (pH 8.2); clear, wavy boundary.
- C1ca- 20 to 30 inches, gray to light gray (10YR 6/1) silty clay loam, dark gray (10YR 4/1) when moist; few, fine, distinct, dark yellowish-brown (10YR 3/4) mottles; weak fine, subangular blocky structure; hard, sticky and plastic; few, fine roots; few fine pores; strongly calcareous; moderately alkaline; (pH 8.2); clear, wavy boundary.
- C2- 30 to 60 inches, gray to light gray (10YR 6/1) loam, dark gray (10YR 4/1) when moist; few, fine, distinct, dark yellowish-brown (10YR 3/4) mottles; massive; hard, firm, sticky and plastic; few, fine roots; few fine pores; slightly calcareous; mildly alkaline (pH 7.8); clear wavy

boundary.

The A1 horizon is silty clay loam or clay loam is 16 to 22 inches thick. It has color value of 4 or 5 when dry and 2 when moist and chroma of 1 or 2. The 10- to 40-inch depth is predominantly silty clay loam or clay loam. A buried A1 horizon is common but does not occur in all places. The lime horizon is 10 to 30 inches below the surface. Some areas have a layer of gravelly loam below a depth of 36 inches. At a depth between 20 and 40 inches the color chroma is 2 or less, and the mottles are distinct or predominant.

CHIPMAN SILTY CLAY LOAM (Ca). -- This soil has slopes of 1 to 3 percent. Included in mapping are some small areas of soils that are similar to this Chipman soil but are 20 to 36 inches deep to gravel. These gravelly areas are 1 mile east of Greenville on both the north and the south sides of the road; three-fourths of a mile west and one-half mile north of Beaver Post Office; three fourths of a mile west of Beaver Post Office on both the north and the south sides of the highway; and 1 1/4 miles west and between 1/2 and 3/4 mile north of Beaver Post Office. Some small areas 3/4 mile east and 1/4 mile south of Greenville, near the Beaver River, that are moderately saline are also included.

Runoff is slow, and the hazard of erosion is slight.

This soil is used almost entirely for pasture or meadow hay. If drained, this soil is suitable for cultivation and can be used for locally grown crops. Capability unit Vw-2, irrigated; not in a range site.

DECCA SERIES

The Decca series consists of deep, somewhat excessively drained soils underlain by sand and gravel. These soils formed in alluvium derived from mixed igneous and quartzite material. They are on dissected fans, terraces, and hills. Decca soils are mainly in the area south and west of Beaver and extend to the lower fans of the Mineral Mountain Range. They are also near Antelope Spring and Twin Peak in the northern end of the survey area. They are associated with Hiko Peak soils. Elevation ranges from 5,400 to 5,900 feet, mean annual air temperature is 47 to 49 degrees F, average annual precipitation is 9 to 12 inches, and the frost-free period is 100 to 108 days. The vegetation is big sagebrush, Indian ricegrass, squirreltail, galleta, and annual weeds.

In a representative profile the surface layer is brown loam about 4 inches thick. The upper 5 inches of the underlying material is very pale brown, very gravelly sandy loam that is very strongly calcareous and weakly calcareous and weakly cemented in places. The lower part is sand and gravel.

Decca soils are slightly to moderately eroded. The available water capacity is 3 to 4 inches in a 5-foot profile, and the water supplying capacity is about 5 to 8 inches. Permeability is moderate. Roots can penetrate to a depth of more than 5 feet.

These Decca soils are slightly to moderately eroded. The available water capacity is 3 to 4 inches in a 5-foot profile, and the water supplying capacity is about 5 to 8 inches. Permeability is moderate. Roots can penetrate to a depth of more than 5 feet.

These soils are used for range, wildlife habitat, watershed catchment, and irrigated crops. The irrigated crops are alfalfa, small grain, pasture plants, and occasionally silage corn. These soils are not well suited to range seeding because of low precipitation. Range vegetation can be improved through good management.

representative profile of Decca loam, 1 to 3 percent slopes, 0.3 miles south of Beaver River bridge on old State Highway 21 at Adamsville and 150 feet west of the highway, sec. 31, T.29 S., R. 8 W.

- A1- 0 to 4 inches, brown (10YR 5/3) loam, dark brown (10YR 4/3) when moist; weak, thick, platy, structure that parts to moderate, thin platy; slightly hard, friable, slightly sticky and slightly plastic, few fine roots; few, fine tubular pores; mildly alkaline (pH7.5); abrupt, smooth boundary.
- B2t- 4 to 10 inches, brown (10YR 5/3) sandy clay loam marginal to loam, brown to dark brown (7.5YR 4/3) when moist; weak coarse, subangular blocky structure that parts to fine blocky; hard, friable, sticky and plastic; common fine and few medium roots; few, fine tubular pores; few thin clay films occurring as bridgings between sand grains; neutral (pH7.3); clear, wavy boundary.
- B3ca- 10 to 15 inches, pale-brown (10YR 6/3) gravelly loam, brown (10YR 4/3) when moist; weak, subangular blocky structure; slightly sticky and plastic; common fine roots; few, fine, tubular pores; moderately calcareous; mildly alkaline (pH7.6); clear, wavy boundary.
- C1ca- 15 to 20 inches, very pale brown (10YR 8/3) very gravelly sandy loam, pale brown (10YR 6/3) when moist; weak, subangular blocky structure; very hard, weakly cemented, firm, slightly sticky and slightly plastic; common fine roots; few, fine, tubular pores; strongly calcareous; mildly alkaline (pH 7.4); clear, wavy boundary.
- IIC2- 20 to 60 inches, varicolored sand and gravel, mainly grayish-brown (10YR 5/2) very gravelly sand, dark grayish-brown (10YR 4/2) when moist; single grained; loose when dry or moist; few fine roots; slightly calcareous; mildly alkaline (pH7.5)

The A1 horizon is 4 to 6 inches thick. It has color value of 5 or 6 when dry and 3 or 4 when moist and chroma of 2 or 3. In places the A1 and B2t horizons are calcareous. The B2t horizon is sandy clay loam, loam, or light clay loam. It has color hue of 10YR or 7.5YR, value of 5 or 6 when dry and 4 when moist, and chroma of 3 or 4. Depth to the Cca horizon is 12 to 20 inches. This horizon is 5 to 30 inches thick. The C horizon ranges from very gravelly sandy loam to very gravelly sand and sand.

Decca loam, 3 to 6 percent slopes (DeC).--On this soil, runoff is medium, and the hazard of erosion is moderate. This soil is used mainly for irrigated crops. A small part is used as range. Capability unit VII-S, nonirrigated, and IVS-24, irrigated; Semidesert Stony Loam range site.

DRAPER VARIANT

The Draper Variant consists of deep, gently sloping, somewhat poorly drained soils on river terraces and flood plains. These soils formed in alluvium derived from mixed igneous and quartzite material. They are on the valley bottom between Beaver and Greenville. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 11 to 13 inches, and the frost-free period is 100 to 108 days. These soils are generally moist. The vegetation includes meadow grasses, clovers, and sedges.

In a representative profile the surface layer is dark-brown loam about 9 inches thick. Below this is 6 inches of brown gravelly loam. Next is pale-brown gravelly sandy loam that is mottled and about 10 inches thick. At a depth of about 25 inches is gravel and very gravelly sand.

The water table fluctuates during the year. It is highest in spring and recedes in summer and fall as the supply of irrigation water decreases.

On the Draper variant, there is little or no erosion. The available water capacity is 4.5 to 5.5 inches in a 5-foot profile. Permeability is moderate. The water table is generally between depths of 15 and 30 inches. Roots can penetrate to a depth of 60 inches.

Meadow pasture and meadow hay are grown on these soils, and in some partly drained areas, irrigated crops of alfalfa and small grain are grown. These soils can be drained, and if the water table is lowered to a depth of 24 to 30 inches, all the locally suited crops can be grown.

Representative profile of Draper loam, sandy subsoil variant, 0.6 mile west of Beaver Post Office and 100 feet north of the highway; NW1/4 sec 21 T. 39 S., R 7 W.

- O1- 2 inches to 0, meadow sod containing some mineral soil material.
- A1- 0 to 9 inches, brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; few fine, faint, dark yellowish-brown (10YR 4/4) mottles; weak, medium, subangular blocky; slightly hard or hard, friable, slightly sticky and slightly plastic; many fine roots; few fine pores; neutral (pH 7.0); clear wavy boundary.
- AC- 9 to 15 inches, brown (10YR 5/3) gravelly loam, dark brown yellowish-brown (10YR 4/4) mottles; weak, medium, subangular blocky; slightly hard or hard, friable, slightly sticky and slightly plastic; many fine roots; few fine pores; neutral (pH 7.0); clear, wavy boundary.
- C1- 15 to 25 inches, pale-brown (10YR 6/3) gravelly sandy loam, brown to dark brown (10YR 4/3) when moist; common, fine, distinct, yellowish-brown (10YR 5/6) mottles; weak, medium, subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common fine roots; few fine pores; moderately alkaline (pH 7.9).
- IIC2- 25 to 60 inches, gravel and very gravelly sand.

The A1 horizon is loam or heavy loam that ranges from 8 to 12 inches in thickness. The upper part of the profile at depths between 10 and 40 inches, is gravelly loam or gravelly sandy loam, and the lower part ranges from very

gravelly sandy loam to very gravelly sand or gravel.

Draper loam, sandy subsoil variant (Ds).--On this soil, runoff is slow, and the hazard of erosion is slight.

this soil has limitations because of the gravelly soil material and the high water table. If drained and the water table controlled, the soil is suited to locally grown crops. Capability unit Vw-2, irrigated.

JAMES CANYON SERIES

The James Canyon series consists of deep, gently sloping, poorly drained soils on alluvial valley bottoms. These soils formed in alluvium derived from intermediate igneous and some sedimentary material. James Canyon soils are mainly along the Beaver River east of Greenville and southwest of Beaver. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 11 to 13 inches, and the frost-free period is 100 to 108 days. The present vegetation includes meadow grasses, red clover, and sedges.

In a representative profile, the surface layer is black and dark-gray silt loam about 28 inches thick. The upper 28 inches of the underlying layer is gray and dark-gray loam and silt loam. The lower part of the underlying layer, extending to a depth of 60 inches, is gray sandy loam.

On James Canyon soils the hazard of erosion is slight. Available water capacity is 7.5 to 10 inches in a 5-foot profile. Permeability is moderately slow. Roots can penetrate to a depth of more than 5 feet. The water table ranges from near the surface to about 30 inches below the surface, depending on the season and the amount of water applied to this and adjacent soils.

Most areas are used for meadow hay or pasture, but a few small areas are used for alfalfa or small grain. If not drained these soils are suited mainly to pasture or meadow hay. If drained, they are suited to all locally grown crops.

Representative profile of James Canyon silt loam, 1 to 3 percent slopes, 1 1/4 miles south of Beaver Post Office on State Highway 91, 100 feet west of highway, sec. 28, T 29 S., R. 7 W.

- A11- 0 to 16 inches, dark-gray (10YR 4/1) silt loam, black (10YR 2/1) when moist; weak, medium, granular structure; hard friable, sticky and plastic; many fine roots; common, fine, discontinuous, random, tubular pores; mildly alkaline (pH 7.4); abrupt, smooth boundary.
- A12- 16 to 28 inches, gray (10YR 5/1) heavy silt loam, black (10YR 2/1) when moist; 15 percent of the soil mass is dark gray (5Y 4/1) mottles; massive; hard, friable, sticky and plastic; few fine roots; few, fine, discontinuous, random, tubular pores; mildly alkaline (pH 7.4); abrupt, smooth boundary.
- C1- 28 to 32 inches, gray (10YR 5/1) loam, very dark gray (10YR 3/1) when moist; massive; hard, friable, sticky and plastic; few fine roots; few, fine, discontinuous, random, tubular pores; mildly alkaline (pH 7.6); clear, smooth boundary.
- C2- 32 to 56 inches, dark-gray (10YR 4/1) silt loam, black (10YR 2/1) when moist; massive; hard, friable, sticky and plastic, very few fine roots; few, fine, random, tubular pores; mildly alkaline (pH 7.4); clear, smooth boundary.
- C3- 56 to 60 inches, gray (10YR 5/1) sandy loam; very dark gray (10YR 3/1) when moist; massive;

slightly hard, very friable, slightly sticky and slightly plastic; few, fine, random, tubular pores; mildly alkaline (pH 7.6).

The A1 horizon is 10 to 28 inches thick. It has color value of 4 or 5 when dry and 2 when moist. The C horizon is loam, silt loam, or sandy loam, but is dominantly silt loam. Gravelly sand or gravelly sandy loam occur below a depth of 30 inches in some places. This horizon has color value of 4 or 5 when dry and 2 or 3 when moist and chroma of 1 or 2. Where chroma is 2, the soil is mottled.

James Canyon silt loam, 1 to 3 percent slopes (JcB).-- This soil has the profile described as representative of the series. It is used mainly for meadow hay or pasture. If drained, this soil is suited to all locally grown crops. Runoff is slow, and the hazard of erosion is slight. Capability nit Vw-2, irrigated.

JAMES CANYON CALCAREOUS VARIANT

The James Canyon calcareous variant consists of deep, gently sloping, somewhat poorly drained soils on flood plains and river terraces. These soils formed in alluvium derived from igneous and sedimentary material. They are south and west of Beaver and extend toward Adamsville. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 45 to 48 degrees F; average annual precipitation is 11 to 13 inches; and the frost-free period is 100 to 108 days. The present vegetation is meadow grasses and clovers.

In a representative profile the surface layer is dark-gray loam about 16 inches thick. The underlying layer is dark grayish-brown or light brownish-gray loam that extends to a depth of 60 inches. Horizons of strong lime accumulation are within 10 to 16 inches of the surface.

On the James Canyon calcareous variant, the hazard of erosion is slight. Available water capacity is 7.5 to 10 inches in a 5-foot profile. Permeability is moderate. Roots can penetrate to a depth of more than 5 feet. The water table is generally at a depth of about 24 to 36 inches, but it fluctuates, depending on the amount of irrigation water applied to these and adjacent soils.

These soils are used for meadow hay and pasture and in some better drained areas, irrigated crops. If these soils are drained and the ground water level is controlled, they are well suited to all locally grown crops.

Representative profile of James Canyon loam, calcareous variant, 1/2 mile south and 1/2 mile west of the Beaver Post Office, 400 feet northwest of the road, sec. 21, T.29., R. 7 W.

- A11- 0 to 4 inches, dark-gray (10YR 4/1) loam, black (10YR 2/1) when moist; moderate, medium and fine, granular structure; slightly hard, friable, slightly sticky and slightly plastic; many fine roots; few fine pores; strongly calcareous; moderately alkaline (pH 8.0); clear, wavy boundary.
- A12- 4 to 16 inches, dark gray (10YR 4/1) loam, very dark brown (10YR 2/2) when moist; weak, prismatic structure that parts to fine, subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many fine roots; few, fine pores; strongly calcareous; moderately alkaline (pH 8.0); clear, wavy boundary.
- ACca- 16 to 43 inches, dark grayish-brown (10YR 4/2) loam, very dark brown (10YR 2/2) when moist;

weak, medium, prismatic structure that parts to medium, granular; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; few fine pores; strongly calcareous; moderately alkaline (pH 8.0); clear wavy boundary.

- C- 43 to 60 inches, light brownish-gray (10YR 6/2) loam, very dark gray (10YR 3/1) when moist; few, fine, faint, very dark brown (10YR 2/3) mottles; massive; slightly hard, friable, sticky and plastic; few fine roots; no pores; slightly calcareous; mildly alkaline (pH 7.7).

The A1 horizon is 10 to 20 inches thick. It has color value of 4 or 5 when dry and 2 or 3 when moist and chroma of 1 or 2. Faint mottles may occur between depths of 24 and 40 inches. The C horizon is loam of sandy clay loam. Depth to the horizon of lime accumulation is 10 to 16 inches. This horizon is 10 to 30 inches thick. The texture below a depth of 20 inches ranges from clay loam to gravelly sandy loam, and in places it is gravelly sand.

James Canyon loam, calcareous variant (Jm).--This soil has slopes of 1 to 3 percent. It is used for meadow hay, pasture, and irrigated crops. It is somewhat limited by a high water table. If drained, it is suited to all locally grown crops. Runoff is slow, and the hazard of erosion is slight. Capability unit 1lw-2, irrigated.

JAMES CANYON HEAVY VARIANT

The James Canyon heavy variant consists of deep, gently sloping, poorly drained soils on flood plains and river terraces. These soils formed in alluvium derived from sedimentary and igneous material. They are in the area between Beaver and Greenville. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 11 to 13 inches, and the frost-free period is 100 to 108 days. The vegetation is meadow grasses and sedges.

In a representative profile the surface layer is covered with about 4 inches of meadow sod. The surface layer is grayish brown and dark gray silty clay loam about 17 inches thick. The subsoil, about 17 inches thick, is light gray, silty clay loam that has prominent or distinct mottles. The substratum is gray silty clay.

On James Canyon heavy variant, the hazard of erosion is slight. The available water capacity is about 11 inches in a 5-foot profile. Permeability is slow. roots can penetrate to a depth of 60 inches. The water table ranges from near the surface to about 20 inches below the surface.

These soils are used mainly for pasture. They are difficult to drain because of their slow permeability. If partly drained and carefully irrigated, these soils are suitable for improved pasture and grain or cultivated crops.

Representative profile of James Canyon silty clay loam, heavy variant, 1 mile west and 1/4 mile south of Beaver Post Office, 250 feet northwest of road corner, sec. 21, T.29 S., R. 8 W.

- O1- 4 inches to 0, very dark grayish-brown to dark grayish-brown (10YR 4/2) meadow sod and some calcareous silty clay loam sediment.
- A11- 0 to 7 inches, grayish-brown (10YR 5/2) silty clay loam, black (10YR 2/1) when moist; very weak, coarse, prismatic structure that parts to moderate, thin, platy; very hard, firm, sticky and plastic; fine roots; few, fine, tubular pores; strongly calcareous; mildly alkaline (pH 7.8);

clear, wavy boundary.

- A12- 7 to 17 inches, dark-gray (10YR 4/1) silty clay marginal to silty clay loam, black (10YR 2/1) when moist; moderate, fine, subangular blocky structure that parts to moderate, fine, granular; very hard, firm, sticky and plastic; common fine roots; few, fine, tubular pores; moderately calcareous; mildly alkaline (pH 7.6); clear, wavy boundary.

- B2- 17 to 34 inches, light-gray (2.5Y 7/1) silty clay loam, gray (2.5Y 5/1) when moist; common, fine, prominent, faint, gray (M 5/0) mottles; moderate, medium, subangular blocky structure; hard firm, sticky and plastic; few fine roots; few fine pores; slightly calcareous; moderately alkaline (pH 8.0); abrupt, smooth boundary.

- C- 34 to 60 inches, gray (2.5Y 5/1) silty clay that is marginal to silty clay loam, dark gray (5Y 4/1) when moist; strongly mottled with green when moist but with light yellowish brown when dry; massive; sticky and plastic; slightly calcareous; mildly alkaline (pH 7.7).

In places the organic horizon at the surface is lacking. The A1 horizon is 10 to 18 inches thick. It has color value of 4 or 5 when dry and 2 when moist and chroma of 1. The 10 to 40 inch zone has color hues of 10YR or 2.5Y, value of 5 to 7 when dry and 2 to 5 when moist, and chroma of 1 or less. This layer is heavy silty clay loam, silty clay loam, or silty clay, and the strata range from loam to silty clay loam. Predominant mottles are generally present above a depth of 20 inches.

James Canyon silty clay loam, heavy variant (Jn).--This soil has the profile described as representative of the variant. Slopes are 1 to 3 percent. Runoff is slow, and the hazard of erosion is slight.

This soil is used for pasture. It can be improved by drainage. Capability unit Vw-2, irrigated.

MANDERFIELD SERIES

The Manderfield series consists of deep, gently sloping and moderately sloping, well-drained soils on alluvial fans and outwash plains. These soils formed in alluvium derived from mixed igneous material and quartzite. Manderfield soils are mainly in the southeastern quarter of the survey area, in the general vicinity of Beaver and Manderfield. Elevation ranges from 5,800 to 6,200 feet. Mean annual air temperature is 46 to 48 degrees F, average annual precipitation is 12 to 14 inches, and the frost-free period is 100 to 108 days. The vegetation is juniper, pinon, big sagebrush, and bluebunch wheatgrass, but in some areas juniper and pinon completely dominate the vegetation.

In a representative profile the surface layer is brown loam about 5 inches thick. The subsoil is brown, firm light clay loam and pale-brown gravelly loam about 19 inches thick. The underlying layer is pale-brown very gravelly loamy sand.

some of the Manderfield soils are slightly to moderately eroded. The available water capacity is 3 to 5 inches in a 5-foot profile, and the water-supplying capacity is 8 to 9 inches. Permeability is moderate. Roots can penetrate to a depth of more than 5 feet.

These soils are used for range, wildlife habitat, watershed catchment, and irrigated crops and pasture. Areas used for range are suitable for brush management, clearing, and range seeding where such practices are needed.

Representative profile of Manderfield loam, 1 to 3 percent slopes, 1/35 miles north of Beaver Post Office on U.S. Highway 91, 115 feet west of highway; SE 14SE14 sec. 9, T.29 S., R. 7 W.

- Ap- 0 to 5 inches brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; moderate, fine, granular structure; slightly hard, friable, slightly sticky and slightly plastic; many fine roots; no pores; neutral (pH 7.3); abrupt, smooth boundary.
- B2t- 5 to 16 inches brown (10YR 5/3) light clay loam, dark brown (10YR 3/3) when moist; weak, medium, to moderate, fine subangular blocky structure; hard, friable, sticky and plastic; common fine roots; many, medium tubular pores; thin, patchy clay films; mildly alkaline (pH 7.6); abrupt, wavy boundary.
- B3- 16 to 24 inches, pale-brown (10YR 6/3) gravelly loam, dark brown (10YR 4/3) when moist; weak, medium, subangular blocky structure; hard, firm, sticky and plastic; fine roots; moderately calcareous, soft secondary lime accumulations in the soil mass and as coatings on gravel; moderately alkaline (pH 8.3); clear, wavy boundary.
- IIC- 24 to 60 inches, pale-brown (10YR 6/3) very gravelly loamy sand; dark brown (10YR 4/3) when moist; massive; nonsticky and nonplastic; very few fine roots; moderately calcareous, lime coatings on gravel; strongly alkaline (pH 8.5); clear, wavy boundary.

The A horizon is 2 to 10 inches thick. It has color hue of 10YR or 7.5YR, value of 5 when dry and 3 when moist, and chroma of 2 or 3. The B2t horizon is 10 to 20 inches thick. It is heavy loam or clay loam in the upper part, and gravelly heavy loam or clay loam in the lower part. This horizon has color hue of 7.5YR or 10YR, value of 5 when dry and 3 when moist, and chroma of 2 through 4. The C horizon is gravelly or very gravelly loamy sand or sand. Lime coatings on the gravel occur just below the B2t horizon in places.

Manderfield loam, 1 to 3 percent slopes (MaB).--This soil is gently sloping and occurs on alluvial fans and outwash plains. It has the profile described as representative of the series. The soil is slightly eroded and has an available water capacity of about 3.5 to 4 inches. Runoff is slow, and the hazard of erosion is slight.

This soil is used for irrigated crops, wildlife habitat, watershed catchment and range. Irrigated crops are alfalfa, small grain, and pasture. Capability unit V1s-U, nonirrigated, and I1s-24, irrigated; Upland Stony Loam range site.

Manderfield cobbly loam, 1 to 6 percent slopes (MeC).--This soil has a profile similar to the one described as representative of the series, but the surface layer is about 25 to 40 percent cobbles. Runoff is slow to medium, and the hazard of erosion is slight to moderate.

This soil is used for range, wildlife habitat, watershed catchment, and irrigated crops. The crops are alfalfa hay, small grain, and pasture. Capability unit V1s-U, nonirrigated, and IVS-24, irrigated; Upland Stony Loam range site.

MILL HOLLOW SERIES

The Mill Hollow series consists of deep, gently sloping to steep,

well-drained soils on mountains and hills. These soils formed in alluvium derived from basic igneous material. Mill Hollow soils are mainly in the northern end of the survey area. They are associated with Firmage, Pharo, and Ushar soils and Rock outcrop. Elevation ranges from 5,900 to 6,500 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 12 to 14 inches, and the frostfree period is 100 to 108 days. The vegetation is big sagebrush, Indian ricegrass, bluebunch wheatgrass and scattered juniper.

In a representative profile the surface layer is brown very cobbly loam and loam about 7 inches thick. The upper part of the underlying layer is brown, pale-brown, or white, friable, very strongly calcareous loam about 27 inches thick. The lower part of the underlying layer is white stony loam.

On Mill Hollow soils the hazard or erosion is moderate to high. The available water capacity is 7 to 9 inches in a 5-foot profile, and the water supplying capacity is 7 to 10 inches. Permeability is moderate. Roots can penetrate to a depth of more than 5 feet.

these soils are used for range, watershed catchment, and wildlife habitat. They are suitable for brush management, clearing, and range seeding where such practices are necessary. The cobbly surface restricts the use of drills for range seeding. Vegetation can be improved by using good range management.

Representative profile of Mill Hollow very cobbly loam, 2 to 10 percent slopes, 4 miles north and 6 miles east of Antelope Point, SE1/4 of sec. 26, T.24 S., R.8 W.

- A11- 0 to 2 inches, brown (10YR 5/3)very cobbly loam, dark brown (10YR 3/3) when moist; weak, think, platy structure that parts to weak, fine granular; soft, friable, slightly sticky and plastic; common pores; moderately alkaline (pH 8.2); abrupt, smooth boundary.
- A12- 2 to 7 inches, brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; weak, fine, granular structure; soft, friable, slightly sticky and plastic; common fine and medium and few coarse roots; few, fine and medium, tubular pores; slightly calcareous; moderately alkaline (pH 8.2); clear, smooth boundary.
- Clea- 7 to 10 inches, brown (10YR 5/3) loam, dark brown to brown (10YR 4/3) when moist; weak, medium, subangular blocky structure; slightly sticky and plastic; common fine and few medium roots; few, medium and coarse, tubular pores; strongly alkaline (ph 8.5); gradual smooth boundary.
- C2ea- 10 to 14 inches, pale-brown (10YR 6/3) loam, brown (10YR 5/3) when moist; weak fine, subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few fine and medium roots; few, fine and medium tubular pores; strongly calcareous; strongly alkaline (pH 8.6); gradual, smooth boundary.
- C3ca- 14 to 34 inches, white (10YR 8/2) loam, very pale brown (10YR 7/3) when moist; massive; weakly cemented, friable, slightly sticky and slightly plastic; few fine, roots; few, fine, tubular pores; very strongly calcareous; strongly alkaline (pH 8.8).
- C4ca- 34 to 60 inches, white (10YR 8/2) extremely stony loam, very pale brown (10YR 7/3) when moist; massive; weakly cemented, friable, slightly sticky and slightly plastic; few fine roots;

few, fine, tubular pores; very strongly calcareous; strongly alkaline (pH 8.8).

The A1 horizon is 7 to 10 inches thick and is 10 to 80 percent cobbles. It has the color hue of 10YR or 7.5YR, value of 5 when dry and 3 when moist, and chroma of 2 or 3. The C horizon is heavy loam or heavy silt loam. Depth to inches. Variable amounts of cobbles and stones occur in the lower part of the C horizon below a depth of 30 inches.

Mill Hollow very cobbly loam, 2 to 10 percent slopes (MMD).--

This gently rolling to rolling soil occurs on hills. It has the profile described as representative of the series. Runoff is medium, and the hazard of erosion is moderate.

This soil is not suitable for range seeding with drills because it has a very cobbly surface. Capability unit VIIs-U, nonirrigated; Upland Limy Loam range site.

MOSIDA SERIES

The Mosida series consists of deep, gently sloping and moderately sloping, well-drained soils on alluvial fans, in valleys, and on flood plains. These soils formed in alluvium derived from mixed sedimentary and igneous material. Mosida soils are in alluvial valleys in several places throughout the area. They are associated with Ushar soils. Elevation ranges from 5,900 to 6,300 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 12 to 13 inches, and the frost-free period is 100 to 108 days. The vegetation is big sagebrush, rabbitbrush, Indian ricegrass, squirreltail, bluebunch wheatgrass, and annual weeds.

In a representative profile the surface layer is dark grayish-brown loam about 6 inches thick. The upper 42 inches of the underlying layer is dark grayish-brown or grayish-brown, very friable loam and silt loam. The lower part is pale-brown, very friable loam.

Mosida soils are slightly to moderately eroded and in places, gullied. The available water capacity is 7 to 9 inches in a 5-foot profile, and the water supplying capacity is 10 to 12 inches. Permeability is moderate. Roots can penetrate to a depth of 5 feet.

These soils are used for irrigated and nonirrigated crops, wildlife habitat, watershed catchment, and range. They are suitable for brush management, clearing, and range seeding where such practices are needed.

Representative profile of Mosida loam, 1 to 3 percent slopes, 2.5 miles south and 1 mile west of the Beaver Post Office, 200 feet northwest of an irrigation well, sec. 32, T. 29 S., R. 7 W.

- Ap- 0 to 6 inches, dark, grayish-brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) when moist; weak fine, granular structure; slightly hard, very friable, nonsticky and nonplastic; many fine roots; many fine pores; slightly calcareous; neutral (pH 7.0); abrupt, smooth boundary.
- C1- 6 to 20 inches, dark grayish-brown (10YR 4/2) loam, very dark grayish brown (10YR 3/2) when moist; weak, medium, prismatic structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine roots; few fine pores; slightly calcareous; mildly alkaline (pH 7.7); abrupt smooth boundary.
- C2- 20 to 48 inches, grayish-brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) when moist; massive; slightly hard, very friable, slightly

sticky and slightly plastic;; few fine roots; few fine pores; slightly calcareous; mildly alkaline (pH7.8); clear, smooth boundary.

- C3- 48 to 66 inches, pale-brown (10YR 6/3) loam, dark grayish brown (10YR 4/2) when moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; moderately calcareous; mildly alkaline (pH 7.7).

The A1 horizon is 4 to 8 inches thick. It has color value of 4 or 5 when dry and 3 when moist and chroma of 2. The C horizon, between depths of 10 and 40 inches, is light loam or light silt loam ranging to very fine sandy loam in some places. In places gravelly horizons occur below a depth of 36 inches. These horizons have color value of 4 or 5 when dry and 3 when moist and chroma of 2. The soil is slightly to moderately calcareous and, in places, is noncalcareous.

Mosida loam, 1 to 3 percent slopes (Mub).--This gently sloping soil occurs on alluvial fans, on flood plains, and in valleys, It has the profile described as representative of the series. Runoff is slow, and the hazard of erosion is slight.

This soil is used mainly for irrigated crops. Among these crops are alfalfa, small grain, and occasionally, corn for silage. This soil is suited to locally grown corn for silage. This soil is suited to locally grown irrigated and nonirrigated crops. Capability unit IIe-26, irrigated, and I'VE-UZ, nonirrigated; Upland Loam range site.

Mosida loam, 3 to 6 percent slopes (MuC).--On this soil, runoff is medium and the hazard of erosion is moderate. This soil is used for irrigated and nonirrigated crops. Capability unit I'VE-UZ, nonirrigated, and IIIe-26, irrigated; Upland Loam range site.

Mosida loam, 1 to 6 percent slopes, eroded (MuC2).--This soil is gently sloping to sloping and is on alluvial fans and in valleys. It has a profile similar to the one described as representative of the series, but the surface layer is 2 to 3 inches thinner. This soil is moderately eroded, and there are a few gullies, Included in mapping are small areas of Mill Hollow loam, 1 to 10 percent slopes, and Phage loam 3 to 10 percent, eroded. Runoff is medium, and the hazard of erosion is moderate.

This soil is used mainly for range, but a small acreage is used for nonirrigated crops. Capability unit I'VE-UZ, nonirrigated; Upland Loam range site.

OASIS SERIES

The Oasis series consists of deep gently sloping well-drained soils that are affected by alkali. These soils are on flood plains and alluvial fans. They formed in alluvium derived from igneous and sedimentary materials. Oasis soils are mainly on the fans above the Beaver River in the area near Greenville. Elevation ranges from 5,300 to 5,900 feet. Mean annual air temperature is 48 to 49 degrees F, average annual precipitation is 10 to 12 inches, and the frostfree period is 105 to 115 days. The vegetation is greasewood, Russian-thistle, and cheatgrass.

In a representative profile the surface layer is pale-brown, friable light loam about 8 inches thick. The upper 24 inches of the underlying layer is pale-brown and light-brown, friable light loam. The lower part is light-brown, friable sandy loam. All horizons are strongly alkaline or very strongly alkaline.

The hazard of erosion is moderate. The available water capacity is 6.5 to 8.5 inches, and the water supplying capacity is only about

4 to 5 inches because of the high content of salts and alkali. Permeability is moderate. roots can penetrate to a depth of more than 5 feet.

These soils are used for range and wildlife habitat. They are not suitable for clearing and range seeding because they contain salts and alkali. Permeability is moderate. roots can penetrate to a depth of more than 5 feet.

These soils are used for range and wildlife habitat. They are not suitable for clearing and range seeding because they contain salts and because precipitation is low. They are suitable for irrigation where the saline and alkali salts have been leached out.

Representative profile of Oasis loam, 1 to 3 percent slopes, 7.1 miles west of Beaver Post Office on U.S. Highway 21, 100 feet south of highway, SW 14 of sec. 28, T. 29 S., R. 8 W.

- Ap1- 0 to 2 inches, pale brown (10YR 6/3) light loam, brown to dark brown (10YR 4/3) when moist; weak, thick, platy structure that parts to weak, coarse, granular; very hard, friable, slightly sticky and slightly plastic; common fine roots; few fine pores; moderately calcareous; very strongly alkaline (pH 9.1); abrupt smooth boundary.
- Ap2- 2 to 8 inches, pale-brown (10YR6/3) light loam, brown to dark brown (10YR 4/3) when moist; weak, coarse, subangular blocky structure that parts to fine, blocky; very hard, friable, slightly sticky and slightly plastic; few medium roots; few fine pores; moderately calcareous; very strongly alkaline (pH 9.9); abrupt smooth boundary.
- C1- 8 to 16 inches, pale-brown (10YR 6/3) light loam, brown to dark brown (10YR 4/3) when moist; weak, medium, prismatic structure that parts to moderate, medium, subangular blocky; hard, friable, slightly sticky and slightly plastic; few medium roots; few fine pores; moderately calcareous; somewhat dense and weakly cemented; very strongly alkaline (pH 9.6); clear, wavy boundary.
- C2- 16 to 32 inches, light-brown (7.5YR 6/3) light loam, brown to dark brown (7.5 4/4) when moist; weak, coarse, subangular blocky structure that parts to fine, blocky; hard, friable, slightly sticky and slightly plastic; few fine roots; few fine pores; moderately calcareous, and content of lime increases with increasing depth; weakly cemented in the lower part; strongly alkaline (pH 8.5); clear wavy boundary.
- C3- 32 to 60 inches, light-brown (7.5YR 6/3) sandy loam; brown (7.5YR 4.5/4) when moist; massive; hard, friable, slightly sticky and slightly plastic; few fine roots; no pores; strongly calcareous; moderately alkaline (pH 8.3).

The A1 horizon is 5 to 8 inches thick and is loam marginal to sandy loam. It has color value of 5 or 6 when dry and 4 when moist and chroma of 2 or 3. The C horizon is 7.5YR, value of 6 when dry and 4 or 5 when moist and chroma of 2 or 3. Gravelly pockets occur in places below a depth of 24 inches. Alkali salts (exchangeable sodium) make up 15 percent to as much as 80 percent of the profile.

Oasis loam, 1 to 3 percent slopes (OAB).--This soil has the profile described as representative of the series. Runoff is

medium, and the hazard of erosion is moderate. This soil is moderately affected by saline salts as well as moderately to strongly affected by alkali salts. Capability unit VIIIs-S8, nonirrigated; Semidesert Alkali Flats range site.

PHAGE SERIES

The Phage series consists of deep,moderately sloping to very steep, somewhat excessively drained soils. These soils are on terraces, dissected fans, hills, and mountains. They formed in alluvium derived from intermediate igneous and mixed sedimentary material. Phage soils occur throughout the survey area. They are associated with Red Butte, Ushar, Black Ridge, and Pass Canyon soils. Elevation ranges from 5,900 to 6,800 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 12 to 14 inches, and the frost-free period is 100 to 108 days. The vegetation is juniper, big sagebrush, yellowbrush, bluebunch wheatgrass, squirreltail, Indian ricegrass, needleandthread, Sandberg bluegrass, and annual forbs. The grasses are sparse.

In a representative profile the surface layer is brown loam about 6 inches thick. The Upper 17 inches of the underlying layer is light brownish-gray or very pale brown, friable loam or gravelly loam. The lower part is very pale brown very gravelly sandy loam. Layers of strong lime accumulation occur at a depth of 6 to 14 inches.

Phage soils are moderately to severely eroded. The available water capacity is 4 to 5.5 inches, and the water supplying capacity is 6 to 9 inches. Permeability is moderately rapid. Roots can penetrate to a depth of more than 5 feet.

These soils are used for range, wildlife habitat, woodland, and watershed catchment and have limited use as woodland. A small acreage is in irrigated crops. These soils are suitable for clearing and range seeding if such practices are needed.

Representative profile of Phage loam, 3 to 10 percent slopes, eroded, 0.8 mile west and ½ mile north of Manderfield, SW1/4SW1/4 sec. 16, T. 28 S., R. 7 W.

- A1- 0 to 6 inches, brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; weak, very fine, granular structure; slightly hard, friable, slightly sticky and slightly plastic; common fine, medium, and coarse roots; few, fine and medium, tubular pores; slightly calcareous; moderately alkaline (pH 8.4); abrupt, smooth boundary.
- C1ca -6 to 13 inches; light brownish-gray (10YR 6/2) loam, dark grayish brown (10YR 4/2) when moist; weak, fine, subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common, fine, medium, and coarse roots; few, fine, tubular pores; strongly calcareous; moderately alkaline (pH 8.4); clear, smooth boundary.
- C2ca- 13 to 23 inches, very pale brown (10YR 8/2) gravelly loam, very pale brown (10YR 7/3) when moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine and coarse roots; few, fine tubular pores; very strongly calcareous; moderately alkaline (pH 8.4); clear smooth boundary.
- C3ca- 23 to 45 inches, very pale brown (10YR 8/3) very gravelly sandy loam, pale brown (10YR 7/3) when moist; massive; strongly cemented; few fine roots; no pores; very strongly calcareous; moderately alkaline (pH 8.4); irregular, wavy boundary.

- C4ca- 45 to 58 inches, very pale brown (10YR 7/3) very gravelly sandy loam, pale brown (10YR 6/3) when moist; single grained; loose; nonsticky and nonplastic; few fine roots; strongly calcareous; moderately alkaline (pH 8.4); clear, wavy boundary.
- C5ca- 58 to 63 inches, very pale brown (10YR 8/3) very gravelly sandy loam, pale brown (10YR 6.5/3) when moist; massive; strongly cemented; very strongly calcareous; strongly alkaline (pH 8.5); clear, wavy boundary.

The A1 horizon is 2 to 6 inches thick. It has color value of 5 and 3 when moist and chroma of 2 or 3. The C horizon has color hue of 10YR or 7.5YR, value of 6 to 8 when dry and 4 through 7 when moist, and chroma of 2 or 3. Textures range from gravelly or very gravelly loam to gravelly or very gravelly sandy loam and sand. Cobbles occur in some places, and in a few places there are thin nongravelly horizons. The average content of gravel of the C horizon, between depths of 10 and 40 inches, is 50 percent or more.

Phage loam, 3 to 10 percent slopes, eroded (P1D2)--This gently rolling to rolling soil is on terraces and dissected fans. It has the profile described as representative of the series. It is moderately eroded. Runoff is medium, and the hazard or erosion is moderate.

This soil is used for range, wildlife habitat, and watershed catchment and has limited use as woodland. Clearing, brush management, and range seeding are successful on this soil where needed. Capability unit vle-U, nonirrigated; Upland Stony Loam (Juniper-Pinon) range sites.

Phage gravelly loam, 3 to 10 percent slopes, eroded (PkD2)--This gently rolling and rolling soil is on dissected fans and terraces. It has a profile similar to the one described as representative of the series, but the surface layer is 20 to 50 percent gravel. Runoff is slow to medium, and the hazard or erosion is slight to moderate. Included in mapping are small areas of soil that is similar to this Pharo soil but that is moderately deep to gravel.

Except in areas that have been abandoned because of water shortage, this soil is used almost entirely for crops. Among the crops are alfalfa and small grain. Capability unit l'VE-24, irrigated, and vle-U, non irrigated; Upland Gravelly Loam range site.

Phage cobbly loam, 3 to 30 percent slopes, eroded (PLF2)--This soil is gently rolling to steep and is on dissected fans, terraces, rolling hills, and mountain slopes. It has a profile similar to the one described as representative of this series, but the surface layer is 20 to 40 percent cobbles. Runoff is medium to rapid, and the hazard of erosion is moderate to high. The cobbly surface layer imposes some limitations on the seeding of range grasses. Capability unit vle-U, nonirrigated, Upland Stony Loam (Juniper-Pinon) range site.

Phage cobbly loam, 30 to 50 percent slopes, eroded (PLG2)--This soil is steep and very steep and is on mountain slopes. It occurs in several small areas in the southern and southeastern parts of the survey area. It has a profile similar to the one described as representative of the series, but the surface layer is 20 to 50 percent cobbles. Runoff is rapid, and the hazard of erosion is high. Included in mapping are small areas of Ushar soils.

Range clearing and seeding is not practical because this soil is steep and has a cobbly surface layer. Brush management may be practical where grass cover is adequate and the stand of trees is

not too dense. Capability unit Vlle-U, nonirrigated; Upland Stony Loam (Juniper-Pinon) range site.

Phage-Ushar complex, 3 to 30 percent slopes, eroded (PSF2)--This mapping unit is about 40 percent Phage cobbly loam, 3 to 30 percent slopes, eroded; 30 percent Phage very cobbly loam, 30 to 30 percent slopes, eroded. The Phage soils are mainly on ridges, rolling hilltops, and steep side slopes. The Ushar soil is mainly in small valleys and on the more gentle side slopes, but in places it occurs on steep side slopes.

The Phage soils have a profile similar to the one described as representative of the Phage series, but the surface layer is cobbly or very cobbly. The Ushar soil has a profile similar to the one described as representative of the Ushar series, but the surface layer is cobbly. Runoff is medium, and the hazard of erosion is moderate.

Included in mapping are areas of Red Butte very cobbly loam, 3 to 30 percent slopes, eroded, which make up 5 percent of the acreage, and areas of Deer Creek cobbly loam, 3 to 30 percent slopes, eroded, which make up 5 percent of the acreage. Also included are small areas of Flowell cobbly loam, 6 to 30 percent slopes, and Rock outcrop.

These soils are used for range wildlife habitat, and watershed catchment, and have limited use as woodland. They are suitable for range clearing and seeding where such practices are needed, but range on the Phage soils in the complex is difficult to seed because the cobbles are so numerous. Capability unit Vie-U, nonirrigated. Phage soils--Upland Stony Loam (Juniper-Pinon) range site, and Ushar soil--Upland Loam (Juniper-Pinon) range sites.

PHARO SERIES

The Pharo series consists of deep, gently sloping to steep, somewhat excessively drained soils on dissected fans, terraces, hills, and mountains. These soils formed in alluvium derived from mixed sedimentary and intermediate igneous material. Pharo soils occur in several places throughout the survey area, mainly in Millard County. They are associated with Mill Hollow and Ushar soils. Elevation ranges from 5,900 to 6,400 feet. Mean annual air temperature is 45 to 48 degrees F, average annual precipitation is 12 to 14 inches, and the frost-free period is 100 to 108 days. The present vegetation included big sagebrush, juniper, bluebunch wheatgrass, squirreltail, Indian ricegrass, yellowbrush, and annual weeds.

In a representative profile the surface layer is grayish-brown very cobbly loam and gravelly loam about 8 inches thick. The upper 20 inches of the underlying layer is light-gray, loose very gravelly coarse sandy loam. Horizons of strong lime accumulation occur between depths of 7 and 15 inches and are generally thicker than 30 inches. The lower part of the underlying layer is white gravelly silt loam.

Pharo soils are slightly to moderately eroded. The available water capacity is 4 to 5 inches in a 5-foot profile, and the water supplying capacity is 8 to 11 inches. Permeability is moderately rapid. Roots can penetrate to a depth of more than 5 feet.

These soils are used mainly for range, wildlife habitat, and watershed catchment and have limited use as woodland, but a small acreage is used for irrigated and nonirrigated crops. These soils are suitable for clearing, brush management, and range seeding where such practices are needed.

Representative profile of Pharo very cobbly loam, 3 to 30 percent slopes, 5 ½ miles north and 3 miles west of Cove Fort, sec. 34, T. 24 S., R. 7 W.

- A11- 0 to 2 inches, grayish-brown (10YR 5/2) very cobbly loam, very dark grayish-brown (10YR 3/2) when moist; weak, fine, granular structure; slightly hard, friable, slightly sticky and slightly plastic; common fine roots; few, fine, tubular pores; moderately calcareous; moderately alkaline (pH 8.0); abrupt, smooth boundary.
- A12- 2 to 8 inches, grayish-brown (10YR 5/2) gravelly loam, dark brown (10YR 3/3) when moist; weak, fine, granular structure; slightly hard, friable, slightly sticky and slightly plastic; many fine and few medium roots; few, fine, tubular pores; strongly calcareous; moderately alkaline (pH 8.2); clear, wavy boundary.
- C1ca- 8 to 29 inches, light-gray (10YR 7/2) very gravelly coarse sandy loam, pale brown (10YR 6/3) when moist; massive; loose, very friable, nonsticky and nonplastic; few fine and medium roots; interstitial pores; very strongly calcareous; moderately alkaline (pH 8.4); gradual, wavy boundary.
- C2ca- 29 to 60 inches, white (10YR 8/2) gravelly silt loam, light yellowish brown (10YR 6/4) when moist; massive; weakly cemented, friable, slightly sticky and slightly plastic; very few fine roots; very few, fine, tubular pores; very strongly calcareous; moderately alkaline (pH 8.4).

The A1 horizon is 7 to 10 inches thick. It has color value of 5 when dry and 3 when moist and chroma of 2 or 3. The C horizon, at a depth between 10 and 40 inches, is generally very gravelly coarse sandy loam or gravelly silt loam, but in some places the upper 8 to 10 inches is free of gravel. It has color hue of 10YR and 7.5YR, value of 6 through 8 when dry and 4 to 6 when moist, and chroma of 3 or 4. The C horizon is 40 to 70 percent gravel. The horizon of lime accumulation occurs at depths between 7 and 15 inches and is more than 30 inches thick.

Pharo loam, 1 to 3 percent slopes (PtB).--This gently sloping soil is on terraces, benches, and fans. It has a profile similar to the one described as representative of the series, but the surface layer lacks cobbles and the upper 10 to 15 inches is free of gravel. The surface layer is 8 to 10 inches thick. Runoff is slow, and the hazard of erosion is slight. Included in mapping are small areas that are free of gravel between depths of 15 and 30 inches.

this soil is used for range, wildlife habitat, and watershed catchment and has limited use as woodland. A small area is used for irrigated crops of small grain and alfalfa. Capability unit IIIs-24, irrigated, and VIe-U, nonirrigated; Upland Stony Loam (Juniper-Pinon) range site.

Pharo loam, 3 to 10 percent slopes (PtD).--This gently rolling and rolling soil is on dissected fans and terraces. It has a profile similar to the one described as representative of the series, but the surface layer is free of cobbles and is 8 to 10 inches thick. Runoff is medium, and the hazard of erosion is moderate. The present native vegetation is mainly big sagebrush and grasses but little or no juniper.

This soil is used for range, wildlife habitat, watershed catchment, and irrigated and nonirrigated crops. Irrigated crops include alfalfa and small grain. In nonirrigated areas, a wheat-fallow cropping

system is used. Capability unit I'VE-24, irrigated, and VI3-U, nonirrigated, Upland Gravelly Loam range site.

POGANEAB SERIES

The Poganeab series consists of deep, gently sloping, poorly drained soils that are moderately affected by salts. These soils formed in alluvium derived from mixed material. They are on flood plains and alluvial fans. Poganeab soils are in the valley bottom between Beaver and Adamsville, and west of Manderfield. Elevation ranges from 5,700 to 6,000 feet. Mean annual air temperature is 47 to 49 degrees F, average annual precipitation is 10 to 12 inches, and the average annual precipitation is 10 to 12 inches, and the frost-free period is 105 to 115 days. the vegetation is meadow grasses and sedges.

In a representative profile the surface layer is light brownish-gray clay loam about 7 inches thick. The underlying layer is grayish-brown or light brownish-gray, firm clay loam, silty clay loam, and sandy clay loam. Mottles generally occur throughout the profile.

On Poganeab soils, there is little or no erosion. The available water capacity is 11 to 12 inches in a 5-foot profile. Permeability is slow. Roots can penetrate to a depth of 60 inches or more. The water table may be near the surface but maybe as much as about 30 inches below the surface, depending on the season and the amount of water applied to this and adjacent soils.

These soils are used mainly for meadow hay and pasture and, at present, are suitable only for these uses. Reclamation of these soils is difficult, but where drained and leached of salts they are suited to irrigated alfalfa and small grain.

Representative profile of Poganeab clay loam, 1 to 3 percent slopes, 800 feet south of Adamsville Tow Road, sec. 30, T. 29 S., R. 8 W.

- O1- 2 inches to 0, meadow sod containing some mineral soil
- A1- 0 to 7 inches, light brownish-gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) when moist; many, fine, faint, dark yellowish-brown (10YR 3/4) mottles; weak, coarse, prismatic structure that parts to moderate, fine, blocky; hard, firm, stucky and plastic; many fine roots; few fine pores; moderately alkaline (pH 8.3); abrupt, wavy boundary.
- C1-7 to 15 inches, light brownish-gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) when moist; many, fine, distinct, dark yellowish-brown (10YR 4/4) mottles; weak, coarse, prismatic structure that parts to moderate, fine, blocky; hard, firm, stucky and plastic; common fine roots; few fine pores; strongly calcareous; moderately alkaline (pH 8.5); clear, wavy boundary.
- C2- 15 to 27 inches, grayish-brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) when moist; few, fine, faint, dark-brown (10YR 3/3) mottles; moderately coarse, blocky structure that parts to fine blocky; hard, firm, sticky and plastic; common fine roots; few medium pores; moderately calcareous; moderately alkaline (pH 8.3); clear, wavy boundary.
- C3- 27 to 38 inches, grayish-brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) when moist; few, fine, faint, dark-brown (10YR 3/3) mottles; moderate, medium, angular blocky structure that parts to fine, angular blocky, very

- hard, very firm, sticky and plastic; few fine roots; few fine pores; strongly calcareous; moderately alkaline (pH 8.0); clear, wavy boundary.
- C4- 38 to 60 inches, light brownish-gray (10YR 6/2) sandy clay loam, dark gray (10YR 3.6/2) when moist; common, coarse, distinct, grayish-brown (2.5Y 5/2) mottles; massive; hard, firm, sticky and plastic; strongly calcareous; moderately alkaline (pH 8.0).

The O1 horizon is lacking in places. The A1 horizon is clay loam marginal to silty clay loam. It has color value of 6 or 7 when dry and 5 or 6 when moist and chroma of 2 or 3. The C horizon, between depths of 10 and 40 inches, is generally clay loam or silty clay loam, but below a depth of 20 inches, strata of fine sandy loam or loam can occur. This horizon has color value of 5 or 6 when dry and 3 or 4 when moist and 3 or 4 when moist and chroma of 2 or less.

Poganeab clay loam, 1 to 3 percent slopes (PxB).--This soil has the profile described as representative of the series. Runoff is slow, and the hazard of erosion is slight. Included in mapping are area of a soil that is similar to this Poganeab soil but has a deep water table. Capability unit Vw-27, irrigated.

USHAR SERIES

The Ushar series consists of deep, gently sloping to very steep, well-drained soils on old alluvial fans, outwash plains, and mountains. These soils formed in alluvium derived from intermedial igneous material. Ushar soils are in several places throughout the survey area. They are associated with Etta, Mill Hollow, Murdock, Mosida, Phage, and Sheeprock soils. Elevation ranges from 6,000 to 6,800 feet. Mean annual air temperature is 46 to 48 degrees F, average annual precipitation is 12 to 14 inches, and the frost-free period is 100 to 108 days. The vegetation is bluegrass, squirrel-tail, big sagebrush, and bitterbrush. In some places juniper and pinon are dominant.

In a representative profile the surface layer is brown loam about 6 inches thick. The subsoil is brown, firm light clay loam or heavy loam about 17 inches thick. The substratum is pinkish-white or light-gray, friable, strongly calcareous loam, gravelly sandy loam, and coarse sand and gravel.

Ushar soils are slightly to severely eroded. The available water capacity is 7 to 10 inches, and the water supplying capacity is 9 to 11 inches. Permeability is moderate. roots can penetrate to a depth of 60 inches or more.

These soils are used for range, wildlife habitat, watershed catchment, and nonirrigated crops and have limited use as woodland. They are well suited to brush management, clearing, and range seeding where such practices are needed.

Representative profile of Ushar loam, 3 to 10 percent slopes, 2.6 miles north and 0.7 mile west of Manderfield, 0.3 mile north and 0.3 mile east of the southwest corner of sec. 8, T 28 S., R. 7 W.

- A11- 0 to 3 inches, brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; weak, very thin, platy structure; slightly hard, very friable, slightly sticky and slightly plastic; vesicular pores; mildly alkaline (pH 7.4); abrupt, smooth boundary.
- A12- 3 to 6 inches, brown (10YR 5/3) loam, dark brown (10YR 3/3) when moist; weak fine, granular structure; slightly hard, friable, slightly

- sticky and plastic; common fine and medium roots; few, fine, tubular pores; mildly alkaline (pH 7.6); clear, smooth boundary.
- B1- 6 to 9 inches, brown (10YR 5/3), light clay loam, brown (10YR 3/3) when moist; moderate, medium, subangular blocky structure that parts to moderate, fine, subangular blocky; hard, firm, slightly sticky and plastic; common fine and medium roots; few, fine tubular pores; mildly alkaline (pH 7.6); clear, smooth boundary.
- B21- 9 to 20 inches, brown (10YR 5/3), light clay loam, dark yellowish brown (10YR 3/4) when moist; moderate, medium, angular blocky structure that parts to moderate, fine, angular blocky; very hard, firm, slightly sticky and plastic; many fine and medium roots; few, fine, tubular pores; moderately alkaline (pH 8.0); abrupt, smooth boundary.

B22ca 20 to 23 inches, pale-brown (10YR 6/3), light clay loam, dark brown (10YR 4/3) when moist; moderate, medium, angular blocky structure that parts to moderate, fine, angular blocky; very hard, firm, slightly sticky and plastic; few fine roots; few, fine, tubular pores; moderately calcareous; moderately alkaline (pH 8.3); clear smooth boundary.

C1ca- 23 to 31 inches, pink (7.5YR 8/4), loam, light brown (7.5YR 6/4) when moist; massive; very hard, friable, nonsticky and slightly plastic; few fine roots; few, fine, tubular pores; very strongly calcareous; strongly alkaline (pH 8.6); gradual, wavy boundary.

C2ca- 31 to 51 inches, pinkish-white, (7.5YR 8/2) gravelly sandy loam, pinkish gray (7.5YR 6/2) when moist; single grained; hard, friable, nonsticky and slightly plastic; few fine roots; very strongly calcareous; moderately alkaline (pH 8.5); gradual, wavy boundary.

C3- 51 to 60 inches, light-gray (10YR 7/2) coarse sand and gravel, light brownish-gray (10YR 6/6) when moist; single grained; loose, nonsticky and nonplastic; slightly calcareous; moderately alkaline (pH 8.3).

The A1 horizon is 2 to 11 inches thick. It has color hue of 10YR or 7.5YR, value of 4 or 5 when dry and 2 or 3 when moist, and chroma of 2 or 3. The B2 horizon ranges from heavy loam to clay loam but is commonly light clay loam. It has color hue of 10YR or 7.5YR, value of 4 or 5 when dry and 3 or 4 when moist, and chroma of 2 or 3 when moist and 3 or 4 when dry. The A and B horizons combined are 12 to 24 inches thick. The CCA horizon is strongly calcareous to very strongly calcareous loam and gravelly sandy loam. The C horizon is coarse sand and gravel or very gravelly sandy loam.

Usher sandy loam, 3 to 10 percent slopes, eroded (UAD2).--This soil has a profile similar to the one described as representative of the series but the surface layer is sandy loam and only 3 to 5 inches thick. This soil is moderately eroded. Runoff is medium, and the hazard of erosion is moderate.

Included in mapping are small areas of Mosida loam, 1 to 6 percent slopes, eroded, and Phage cobbly loam, 3 to 30 percent slopes, eroded. In mapped areas near the east side of the Mineral Mountain Range, the surface layer is 10 to 15 percent cobbles.

This soil is used mainly for range, wildlife habitat, and watershed

catchment. It is suitable for clearing, brush management, and range seeding where such practices are needed. It is also suited to nonirrigated ; Upland Loam range site.

WET ALLUVIAL LAND

Wet alluvial land (Wt) is a land type that consists of deep, poorly drained, gravelly or cobbly soil material. It is moderately extensive along the Beaver River bottom, both east and west of Beaver City, and is subject to overflow. In places there is little or not horizon formation. In other places, the soils can be recognized but are too small in extent to be mapped. There is considerable variation within a short distance. Although the soils are gravelly or cobbly and range from loam to coarse sand, they are generally sandy loam or coarse sand. Mottles occur at various depths below 6 inches. The water table fluctuates with the flow of the Beaver river but is generally at depths between 12 and 30 inches. The native vegetation is cottonwood trees, bluegrass, big sagebrush, rabbitbrush, and sedges. It is used for pasture and wildlife habitat. Capability unit VIw-2, nonirrigated; Wet Stream Bottoms range site.

Appendix I - Comparative Tax Tables

Table 14 - Mountain States General Sales and Use Taxes¹³

| State | State Rate | Local Rate | Combined Rate |
|------------|-------------|-------------|---------------|
| Utah | <u>5.00</u> | <u>1.25</u> | <u>6.25</u> |
| Arizona | 5.00 | 1.20 | 6.20 |
| Colorado | 3.00 | 3.50 | 6.50 |
| Idaho | 5.00 | 0.00 | 5.00 |
| Montana | 0.00 | 0.00 | 0.00 |
| Nevada | 7.50 | 0.50 | 7.00 |
| New Mexico | 5.00 | 0.81 | 5.81 |
| Wyoming | 3.00 | 1.00 | 4.00 |

¹³Statistical Review of Government in Utah, 1993, pg. 68

Table 15 - Comparison of Corporate Income Tax Rates for Utah and Western States¹⁴

| State | Maximum Gross Rate % | Effective Maximum Rate % |
|--------------|---------------------------------|-------------------------------------|
| <u>Utah</u> | <u>5.00</u> | <u>5.00</u> |
| Arizona | 9.30 | 9.30 |
| California | 9.30 | 9.30 |
| Colorado | 5.40 | 5.40 |
| Idaho | 8.00 | 8.00 |
| Montana | 6.75 | 6.75 |
| Nevada | 0.00 | 0.00 |
| New Mexico | 7.60 | 7.60 |
| Oregon | 8.06 | 8.06 |
| Washington | 0.00 | 0.00 |
| Wyoming | 0.00 | 0.00 |

¹⁴Statistical Review of Government in Utah, 1993, pg. 68

Appendix J - Trails Information

TRAILS

Hiking or horseback is probably one of the most favored ways to see the beautiful scenery and seek the solitude of the Forest. Be sure and go prepared for emergencies, take the necessary supplies along and check the local weather forecast before leaving.

Saddle horse and pack stock use, once the traditional travel mode through the back country, has become a recreational pastime for many people. Many of the 279 miles of trails on the Beaver Ranger District provide a quality riding experience, ranging from short trails for day, afternoon, and evening excursions to extended trips into the back country.

Many hikers make use of trails on the Beaver Ranger District as well. While hiking or riding in the back woods be sure and extinguish your fire completely before leaving. Packing out nonburnable refuse is always necessary. Maintaining the quality of any outdoor recreation experience requires a land use ethic that is the responsibility of everyone. "Take only pictures and leave only footprints."

The District maintains a limited amount of the trails each year because of the lack of funding. Volunteers have helped immensely by adopting a trail or maintaining a favorite trail. This is the only way a lot of the trails ever get opened up and maintained. If you are interested in assisting, contact the volunteer coordinator on the District.

Some of the most favored trails are listed below, but there are many others that can be enjoyed by the hiker or horsemen.

DELANO PEAK

General Description: A day hike to 12,169 foot Delano Peak in the Tushar Mountains.

General Location: Twenty-one miles east of Beaver.

Maps: USGS Delano Peak and Shelly Baldy Peak Quads and the Fishlake National Forest Travel Map.

Special Attractions: Spectacular views of southern Utah.

Best season for hike: Late spring through fall.

For more information: Write the Beaver Ranger District, Fishlake National Forest, Box E, Beaver, Utah 84713 or call (801) 438-2436.

The Tushar Mountains, east of Beaver, don't have the reputation of the spectacular Wasatch Range near Salt Lake. Therefore, few hikers realize there are higher peaks in the Tushars - most notably, 12,169 foot Delano Peak.

This part of the Fishlake National Forest offers high alpine scenery and excellent opportunities for day hikes or overnight backpacking trips. The Tushar Mountains were at one time home for one

of the state's largest deer herds.

Two approaches are recommended to Delano Peak and 11,985 foot Mount Holly - one near Elk Meadows Ski Resort, the other from the Big John Flat Road. Both trails can be done individually or as part of a longer loop hike, necessitating a car shuttle. Portions of both routes are along existing trails. Once you're about timberline, you will be traversing your own trail much of the way.

Take State Highway 153 east of Beaver to Elk Meadows Ski and Summer Resort approximately 20 miles then travel another mile on 153 past Elk Meadows to the beginning of the trail. Trail #175 leaves the highway heading northeast. Travel the trail approximately 2.3 miles to the Skyline Trail #225. Once on the Skyline Trail travel northwest approximately ½ mile. At this point you will see a ridgeline running northeast - southwest. Travel the ridge approximately 1.5 miles to Mount Holly. From here, if you desire, you can hike back to the northwest approximately 2 miles to arrive at Delano Peak. The recommended route is along the ridge off-trail and will be steep and rough in places. The saddle between the two peaks is just over 11,500 feet. The peak cannot be seen during the ascent, but once on the relatively flat top, you get the most impressive views of the Tushar Mountains.

Much of the hike is above timberline and the views are spectacular. Puffer Lake is to the south, Mount Holly Ski Area and the Great Basin ranges are to the west, Belknap and Mt. Baldy peaks rise to the north and Piute Reservoir is visible to the east.

The second, more primitive approach to Delano Peak begins from the Big John Flat Road. Drive about 16 miles east of Beaver on Highway 153 and turn left toward Big John Flat. Follow this dirt and gravel road (not recommended for low clearance vehicles) 3.6 miles north to the flat. Keep to the right and proceed another 1.8 miles to where the trail starts. If unsure of location it is approximately ½ mile past Griffith Creek. The beginning is an old jeep road that has been closed and is posted with a "no motorized vehicle" sign. Travel east by foot from here for approximately 1 ½ mile to Delano Peak.

SKYLINE NATIONAL RECREATION TRAIL

General Description: A day hike along the "skyline" of the Tushar Mountain Range. Trail length is 8.3 miles.

General Location: Twenty-three miles east of Beaver on State Road 153.

Maps: USGS Delano Peak and Shelly Baldy Peak Quads, Fishlake National Forest Brochure of the Skyline National Recreation Trail #225 and the Fishlake National Forest Travel Map.

Special Attractions: Spectacular views of several mountain ranges and the east and west side of the Tushar Mountain Range.

Best season for hike: July through October.

For more information: Write the Beaver Ranger District, Fishlake National Forest, Box E, Beaver, Utah 84713 or call (801) 438-2436.

The Skyline Trail was placed on the National Recreation Trail System in 1979. Craggy peaks around the trail give the experience of being on top of the mountains near the "skyline".

This entire trail is closed to all motorized travel so for those people who are looking for solitude and want a good hike, mountain bike or horseback ride this route is an excellent one! Various types of wildlife can be seen from the trail.

The trail crosses elevations ranging from 10,100 feet to 11,100 feet. Mountain peaks seen from the trail have elevations of 11,161 feet (City Creek Peak) to 12,169 feet (Delano Peak). The Circleville Valley - Piute Reservoir area and the lowlands of the east of the trail lie at 6,000 feet elevation.

There are three different trailheads on this trail so whether a person just wants a short half day hike or if you want to hike the entire route you will need to have someone shuttle a vehicle. Several trails interconnect with the Skyline for people who want to spend more than just one day.

Take State Highway 153 east of Beaver for approximately 20 miles to Elk Meadows Ski and Summer Resort and Puffer Lake. The highway is paved up to Puffer Lake then a gravel road from that point. Travel on the Big Flat another three miles. The trailhead is located about 0.25 miles south of the Big Flat Guard Station where the road leaves the timber and enters the Big Flat meadow. There is a sign with direction to the trailhead at this junction. The trailhead lies 200 yards east of State Road 153 where there is an unloading ramp for horses. The Piute ATV Trail, south and west of the Skyline Trail, can also be accessed from this trailhead.

ABANDONED SR-153 LOOP

Location: East of Beaver

Elevation: 7,000 - 9,000 feet

Season: June - October

Access: This route would be a short one if the individual was looking for a short day. To start this trip, you would start at Three Creeks Reservoir at the end of the road. This road was closed off recently when the new SR-153 was built near Mr. Holly and was left especially for OHV use. The closed road is approximately 2 ½ miles to Puffer Lake, and if the individual wanted to ride further he/she could ride around Cullen Creek Road #129 and out at Big Flat. There is an entire loop road that covers approximately 12 miles and circles back to Three Creeks. On the Fishlake National Forest Travel Map the route is designated. Be sure and follow the map closely because the loop is adjacent to closed areas that the individual should be aware of.

BLUE LAKE #123

This trail is a favorite for hikers, bicyclists, and horse back riders. From Big John Flat the trail is approximately 6 miles to Blue Lake. This trail is well maintained and would be a nice day trip for the recreationist.

Location: Tushar Mountains, east of Beaver

Elevation: 9,800 - 11,000 feet

Season: July - September

- Access:** Travel from Beaver east on paved SR-153 for approximately 16 miles to Forest Road 123. This road is a two lane dirt road that can be accessed with a low clearance vehicle during dry conditions, turn north here and travel another three miles to Big John Flat. Just at the edge of the flat turn west and travel for approximately ½ mile where trail #172 (Shelly Baldy Creek), #058 (Bosman Ridge Trail) and #064 (Duncan Creek Trail) begin. Hike approximately ½ mile where these trails intersect. Shelly Baldy Creek Trail heads north and accesses Blue Lake. The hike into Blue Lake is easy, but coming back out on the same trail will be moderate in difficulty.
- Setting:** Vegetation varies from high elevation grassy slopes to fir and spruce forest.
- Special Features:** The views seen from this trail are spectacular. As you ride through thick wooded areas of Engelmann spruce and small streams, you may see a mountain goat or that huge mule deer you've been dreaming of seeing. At one area in the trail, you will come out on a point overlooking Blue Lake which is an overwhelming site. Blue Lake sits at the bottom of Mount Baldy (12,082 feet in elevation) and Mt. Belknap (12,139 feet in elevation) and is at the head of the South Fork of North Creek drainage. Blue Lake is quite large in size and is named well because of its color. Although fish do not live in the lake itself, there are fish in the South Fork drainage below the lake.

CLEAR CREEK CANYON - FREMONT PARK AREA

- Location:** This trail is easily accessible from I-70 and State Highway 13 which runs through Fremont Indian State Park. The Park's museum and visitor center is located about 25 miles southwest of Richfield.
- Facilities:** Castle Rock Campground, just two miles from the Park has handicapped access, camping units, fire grills, potable water and flush toilets.
- USGS Map:** Trail Mountain, Marysvale Canyon, Red Ridge
- Special Features:** Be sure to allow time for seeing the Park and learning about these Indian people who disappeared from southern Utah some 700 years ago. Many of the artifacts taken from the canyon are interpreted at the Museum.

COVE CREEK TRAIL #054

The Cove Creek Trail is a favorite for those people who really want to get away from it all. There are many scenic areas along the trail including old beaver ponds, small meadows, and scenic overlooks near the top. The trail is quite rough in some areas and in the summer time in the lower elevation one must be aware of rattlesnakes. The trail follows the Cove Creek drainage approximately 6 miles and so it has many stream crossings. This trail is moderate to strenuous and the individual or horse must be in good condition to traverse it. It is approximately 13 miles from Cove Creek to Indian Creek and would probably require two days backpacking and one day

on horseback. The trail traverses the high ridge above Sulpherdale, Pinecreek and I-15 through a forest of timber pine where a person can see many mountain ranges toward the west. Many spots along the trail, especially close to Indian Creek are narrow, steep and dangerous but the individual will see beautiful scenery. There is one area near Indian Creek that lures many photographers and is known as Little Bryce Canyon because of its colors. There are many trails in this area if a person wanted to explore, but many of them do not get yearly maintenance. Be sure and acquire a Travel Map before starting your trip.

FOUR CREEKS LOOP

18 mile loop, 1,200 feet elevation range, for intermediate + to advanced riders, 2 ½ hours riding time.

Location: Near I-70 and State Highway 13.

Elevation: 5,000 - 6,500 feet

Season: April - November

Facilities: Castle Rock Campground is near Fremont Indian State Park which has potable water, plenty of camping units and flush toilets.

Access: This ride can be taken in either direction, and borders Mill Creek and Clear Creek while splashing through Fish Creek and Shingle Creek. If you begin at the Fremont Museum (5,800 feet elevation), ride west on Highway 13 for seven miles through the Narrows. This is a gentle but steady climb on pavement to 6,700 feet elevation, with Clear Creek on the left and rugged canyon walls on either side.

Turn left on Road #114--the next eight miles follow the Piute ATV Trail. Ride south on #114 beneath the I-70 overpass and ford Shingle Creek. Continue for a mile to a flat, and turn left toward an old grass airstrip. This is high point of ride at 7,000 feet.

Turn right as you enter the airstrip into a patch of pinyon pine and juniper. Behind the second patch you can see the high volcanic Tushar Mountains. After riding through the third patch of trees, drop down on the right fork and continue to Fish Creek.

Ford the creek and make two more wet crossings downstream. Water is midcalf to knee deep! The Piute Trail then climbs through a gap in the rock to Mud Flat, and parallels I-70 back to Mill Creek. Turn left under the overpass (leaving the Piute Trail) and back to the starting point.

PIUTE ATV TRAIL

The entire Piute ATV loop which covers the Fishlake National Forest is approximately 200 miles long.

- Location:** Approximately 40 miles of the Piute ATV Trail is located on the Beaver Ranger District. This trail crosses the District in a north to south direction. Location of trailheads include:
1. Fremont Indian State Park
 2. Circleville, Utah
 3. Betenson Flat
 4. Big Flat
 5. Big John Flat
- Driving time is approximately 10-12 hours, but the trail is much more enjoyable if you camp along the way.
- Elevation:** 6,000 to 11,000 feet
- Season:** Mid June through October
- Facilities:** Many undeveloped camping areas are available through the entire route. Three toilet facilities are located near the Big John portion of the trail. One toilet facility is at Timid Springs (near Big Flat). This is a nice place to camp. There are unloading ramps located at Sawmill Fork, Big Flat and Long Flat. Access the towns of Circleville and Marysvale on your ATV for all modern conveniences.
- Access:** The trail can be accessed in several locations. 1) Leave I-70 at Exit 15 and continue on Forest Road #113 to the junction of Mill Creek and Sevier Canyons. 2) Start at the town of Circleville and drive past the cemetery up Wades Canyon (Forest Road #101). 3) Start on the southeast side of Betenson Flat to ride either to Circleville or I-70. 4) Start on the south end of Big Flat at the Long Flat road junction or drive to the nearby Skyline National Recreation Trailhead where a ATV unloading ramp is available. 5) Start at Big John Flat near the first toilet facility and travel down Sawmill Ridge.
- Directional markers are located on the trail. Acquire a Fishlake National Forest Travel Map for specific locations of the trail.
- Setting:** Vegetation varies from sagebrush, oak, pinyon and juniper to Engelmann spruce, aspen and fir.
- Special Features:** Recreational opportunities available along the route include general sightseeing, stream fishing, hunting, hiking and ATV trails. Areas of geologic interest are also associated with Piute ATV Trail. There are several scenic overlooks along the trail. Visit the Fremont Indian State Park and learn about the Fremont culture. Castlerock Campground is available near the museum for overnight camping.

SARGENT MOUNTAIN LOOP

16.5 miles, 2,500 feet elevation range, for advanced + riders, 5 hours riding time. Riding up through the six fords and returning to Highway 13 makes an easy to intermediate- 6 mile trip, which can be done in an hour.

Location: Near Highway I-70 and State Highway 13

Elevation: 5,000 - 8,300 feet

Season: May - October

Access: This ride is best taken from one direction. Begin at the Tushar Mountain Village turnoff across Highway 13 from the Park museum. Ride beneath the I-70 overpass, past the Village, and keep right through a saddle on primitive road #475. Continue by a small reservoir and rock canyon walls. As you climb slowly there are six fords of Dry Creek, which usually isn't dry!

The trail rises sharply, requiring some walking to Prince Valley (6,400 feet). Here a shortcut takes off to the left. Keep going straight past the dry lakebed of Willow Lake, to the intersection with Road #476 near a small spring fed stream. Climb another one-half mile to 8,300 feet elevation, and continue on #476 past Sargent Lake and Twin Lake. The trail begins dropping now, with some steep, rocky sections as you approach Sage Flat.

Through the Flat and down into Dry Wash. The trail is right in the dry creekbed in places, with some stretches of sand. Slow down through the last two miles to look at the boulders, rock formations, and lizards skittering across the track.

The dirt road ends at State Highway 13. Turn left and cruise back 5 miles to the starting point. Picnic sites are found along Clear Creek. Ask at the Park for the location of rock shelters and other remnants of prehistoric use.

Special Features: This loop climbs from the valley to 8,300 feet elevation on Sargent Mountain. Much like climbing a mountain peak, it offers a physical challenge, variety of vegetation and geologic features, and excellent overlooks at the top and on the return trip. Allow enough time for breaks and take plenty of water.

OHV Use: The entire Sargent Mountain area is open to OHVs, but remember that off-road travel is not permitted when ground is wet and ruts will result. Refer to your Fishlake National Forest Travel Map for additional information about OHV use. There are some private lands in this area so be sure and get permission from private land owners before traveling across their land.

SOUTHCREEK - LABARON TRAIL

Location: This trail is located about ten miles southeast of Beaver.

Elevation: 7,400 to 10,200 feet

Season: Generally May through October

Facilities: A trailhead is located on the South Creek Road. At the trailhead a horse and ATV unloading ramp is available. Undeveloped camping areas can be

found along the trail.

Access: To reach this trail travel approximately two miles south of Beaver on State Highway #91. At the intersection marked with a "South Creek Road" sign turn east and travel southeast on the main South Creek Road (Forest Road #008). This road is a two lane dirt road that can be accessed with a low clearance vehicle during dry conditions. The South Creek Trailhead is located approximately eight miles up the South Creek Road and the trail is signed near the unloading ramp. There are many interconnecting trails in this area but to arrive at Anderson Meadow stay on trail #068. This trail will lead into Big Flat area and joins the Skyline Trail. It is easy to moderate to traverse.

Setting: Common vegetation varies from sagebrush and oak to engelmann spruce, aspen and fir.

Special Features: Lake fishing, hiking, and hunting opportunities are available. ATV's can be used on portions of this trail. Spectacular mountain scenery and beautiful fall colors can be seen.

Acknowledgments

The City Council would like to extend special thanks to the members of the General Plan Advisory Committee, which has worked for over a year to develop and revise the General Plan in order to present it to the Planning Commission.

GENERAL PLAN ADVISORY COMMITTEE

Ron Bird
Bruce Brown, Chairman
David Bradshaw
Helen Christiansen

Kallie Goff
Kevin Wilden
Robert Strong

MAYOR

James R. Robinson

CITY COUNCIL

Max Anderson
Paul Anderson
Robin Bradshaw

Ann Marshall
Les Williams

CITY MANAGER

Steve Atkin

Hal Lessing, Recorder
Ann Buffington, Deputy Recorder
Previous contributing council member *Mike Dalton*

PLANNING COMMISSION

Bruce Brown, Chairman
Burt Myers
Joanna Beeson

Ronnie Roberts
Doug Briggs

Jeniene Christopherson, Secretary
Previous contributing commission member *Ann Marshall*

FIVE COUNTY ASSOCIATION OF GOVERNMENTS

Curt Hutchings, Associate Planner Project Manager

Adoption

Council member Ann Marshall made a motion seconded by Council member Robin Bradshaw to adopt this General Plan of the City of Beaver, Utah. The plan was PASSED, APPROVED and ADOPTED this 27th day of September, 1994 by the following vote:

AYES: Paul Anderson, Robin Bradshaw, Ann Marshall, Les Williams

NOES:

ABSENT: Max Anderson

ABSTAINED:

James R. Robinson, Mayor
City of Beaver, Utah

Attest:

Hal Lessing, City Recorder
City of Beaver, Utah