

# EMIGRATION CANYON

General Plan

SALT LAKE COUNTY PUBLIC WORKS DEPARTMENT



Planning Division

November, 1999

# Preface

## Organization of the General Plan

The Emigration Canyon Township Community General Plan is organized into three sections.

### Section A - INTRODUCTION

*Preface* - includes an explanation of the contents of the Plan as well as its organization, the issues involved, a description of the 1985 Emigration Canyon Master Plan, and a description of the planning process.

*Community Description* - contains a brief history of the area, population figures, a general description of the community's land use, zoning, and a description of the community's services and utilities, such as sheriff, fire, schools, etc.

### Section B - GOALS AND POLICIES

*Emigration Canyon Township Community Vision* - contains a description of the community's vision of its future based on input from residents, property owners, Emigration Advisory Committee members, and other interested groups.

*Environmental Quality and Preservation* - discusses issues including water resources, visual resources, wildlife, vegetation and others. This section includes policies aimed at continuing identification of critical environmental issues in the Canyon and towards the preservation of its natural resources.

*Transportation* - gives current traffic figures and road conditions, as well as identifies issues for future transportation needs of the Canyon. It also includes goals and policy recommendations to meet those needs.

*Open Space and Recreation* - describes issues surrounding the identification and preservation of open space in the Canyon. This section also deals with the recreational uses of the Canyon and includes a trail access element and map identifying the Canyon's many trails.

*Natural Hazards* - outlines the existing natural hazards that need to be considered for development to occur. The hazards outlines include a general geologic setting, topography and slope stability, soil-related hazards, hydrology and flooding, wetlands and seismic hazards. Policies and recommendations for safety and hazards mitigation, as well as compliance with State and County development ordinances and regulations with regard to natural hazards are also included.

*Land Use Policies* - contains the policies for guiding growth and development, specifically for residential and commercial development in the Canyon. The residential element contains a residential holding capacity section, as well as open space subdivision design policies and a ridgeline protection policy.

### Section C - IMPLEMENTATION MEASURES

*Implementation* - contain the recommendations and strategies for implementing the policies in this Plan.

### Section D - APPENDICES

*Appendix* - includes supplemental information to the General Plan relating to Amending the General Plan, Trails Information, and Soil Table Data

## *Role and Purpose of the General Plan*

The intent of the Emigration Canyon Township General Plan is to achieve a proper balance between the natural and man-made environments by ensuring that development is sensitive to natural resources and constraints.

While not mandatory, this Plan will serve as a guide for the County legislative body, planning commissioners, community council, residents, property owners and others with an interest in the Canyon. It contains policies that are a reflection of the community's vision. The community is experiencing increasing pressure for new development, and also the preservation of Canyon amenities. Pressure for development is evident in the large tracts of land that are in single ownership, or owned by single development companies. These tracts often contain many acres of developable land that may be subdivided and sold for residential construction. There is also pressure from groups within the Canyon to ensure that the Canyon's unique open spaces and natural amenities are identified and preserved. The right to develop and concern for protection of the Canyon are both valid. In response to this and many changes occurring in the Canyon, the Planning Commission of Salt Lake County directed the Planning Division Staff to prepare a Community General Plan as an update to the 1985 Emigration Canyon Master Plan, and to analyze trends, examine current circumstances and provide continuing guidance for the future of the Canyon.

This Plan will serve as a policy guide for future land use decisions in Emigration Canyon. The Plan is intended to identify and explain existing policies involving the specific elements contained herein. It is also intended to guide decisions regarding the creation of new policies and procedures that affect the Canyon, its residents, property owners and Canyon users. This Plan is an update to the 1985 Emigration Canyon Master Plan done by the Salt Lake County Planning Division. Certain elements and information contained in the 1985 plan have been monitored and their progress since adoption of that plan is reported in this document. There is a great deal of new information contained in the Plan as well. This information represents developments in land use trends, geologic

information, ordinance regulations, and an accumulation of the most specific mapping information available. This Plan is also written in accordance with Section 17-27-301 of the Utah State Code, which mandates that each county shall prepare and adopt a comprehensive general plan for:

- a) the present and future needs of the county; and,
- b) the growth and development of the land for urbanization, trade, industry, residential, agricultural, wildlife habitat, and other purposes.

The plan may provide for:

- a) health, general welfare, safety, energy conservation, transportation, prosperity, civic activities, aesthetics, and recreational, educational, and cultural opportunities;
- b) the reduction of waste of physical, financial, or human resources that result from either excessive congestion or excessive scattering of population;
- c) the efficient and economical use, conservation, and production of the supply of:
  - i. food and water; and
  - ii. drainage, sanitary, and other facilities and resources;
- d) the use of energy conservation and solar and renewable energy resources;
- e) the protection of urban development; and
- f) the protection and promotion of air quality.

The plan may define the county's local customs, local culture, and the components necessary for the county's economic stability.

The county may determine the comprehensiveness, extent, and format of the general plan.

Salt Lake County fulfilled the state mandate by creating the Salt Lake County Master Plan in 1965. The 1985 Emigration Canyon Master Plan was adopted as part of the County Master Plan. This document is an update to the 1985 Emigration Canyon Master Plan

## *Update of the 1985 Emigration Canyon Master Plan*

The Emigration Canyon Master Plan was adopted in 1985 based on the community's need for a localized planning effort. The Plan studied such aspects as traffic and road conditions, slope, hillside slippage and erosion, natural hazards, existing zoning and future zoning needs, critical wildlife habitats, and hydrology and development suitability.

Some of the most important questions answered by the Plan pertained to how much new development could occur. The Plan identified areas that were more suitable for development given such constraints as steep slopes, soil conditions, areas of known slippage, road capacity, zoning, and others. It served as an effective tool for guiding land use decisions in the Canyon and provided a long-range comprehensive framework for growth, based on the implementation strategies it provided.

The 1985 Emigration Master Plan contains elements, which needed to be monitored, updated and reviewed since its adoption. Those elements, which needed monitoring and review, are included in this Plan, and have been updated with the most recent and accurate information available. Following is a summary of the main elements from the 1985 Master Plan, which have been updated and included in this Plan. This list does not represent all of the elements contained in the 1985 Master Plan.

**History** - contains a brief history of the Canyon and its evolution to a residential canyon.

**Present Development** - indicates that there were nearly 300 dwellings in the Canyon, used mostly year-round. It also indicated that there were approximately 1,200 undeveloped lots of record, and in those lots of record are approximately 200 building sites.

**Traffic** - counts from 1983 indicated 3,600 average daily vehicle trips (ADT), 2,300 of which were estimated to be from Canyon residents. The Traffic Section was very influential in determining the residential capacity of the Canyon. It concluded that if road conditions were to remain the same (without road modifications such as

widening or adding lanes), the ADT level in the Canyon should not exceed 6,000 to 8,000. Using 6,000 ADT and subtracting the ADT count at that time of 3,600, allowed for 2,400 more ADT, which would accommodate 300 new residential units. Using the 8,000 ADT figure, the number of new units could reach 555.

**Existing Zoning** - listed the current zones, the uses they allowed and their densities. It also briefly explained the Hillside Protection Zone, which had been adopted in 1980.

**Land Suitability Analysis** - describes the means for combining certain environmental factors to analyze the potential for development. The suitability analysis included the following factors:

- *Deer Winter Range* - identifies Normal and Severe Winter Ranges.
- *Erosion and Hillside Slippage* - explains erosion and hillside slippage factors, their causes, and mitigation techniques.
- *Hydrology* - explains hydrological characteristics, their effects on development, and mitigation techniques.
- *Slope* - Analyzes the Canyon and indicated slopes of 0-10%, 10-20%, 20-30% and 30% and above, and indicated that development problems occur above 30%

**Standards** - Lists applicable standards to which development must comply (i.e. Zoning Ordinance, Subdivision Ordinance, etc.).

**Recommended Development Philosophy and Policies** - contains land use recommendations and policies.

In updating the 1985 Master Plan, the Salt Lake County Planning Division created a series of maps depicting the elements from the 1985 Plan, as well as incorporating new information. The maps also include a series of enlargements of the populated areas of the Canyon, separated into eight sections. The information in these enlargements allows a more accurate review

of conditions and constraints. The information and research used to create these maps includes the Salt Lake County Planning, and Development Services Divisions, Recorder's, Surveyor's, and Assessor's Offices, Salt Lake City, the U.S. Forest Service, and Canyon property owners.

Following is a list of the maps created for the Plan as well as a brief description:

- *100-Year Flood Plain* - Flood plain delineation.
- *Bedrock Characteristics* - Outlines bedrock types.
- *Existing land use* - Shows current land uses.
- *Existing Zoning* - Shows zone boundaries.
- *Hydrology* - Shows streams, springs, ponds, wetland areas and the stream buffer zone.
- *Property Ownership* - Shows Forest Service and Salt Lake City property as well as large landowners.
- *Ridge Line Protection Areas* - Maps prominent ridgelines and the 100-foot protection areas surrounding them.
- *Road Categories* - Shows road classifications according to type and size.
- *Slope* - Indicated steep slope areas (above 30%), based on most accurate information available.
- *Soil Constraints* - Shows soil type boundaries.
- *Trails Access Plan* - Shows trail locations and trail types.
- *Transportation Improvements* - Shows planned improvements and works in progress.
- *Wildlife Habitat* - Shows critical wildlife habitat areas.

The series of eight sub-area enlargements are as follows:

- *Enlargement Key* - Depicting the location of the enlargements in the Canyon.
- *Housing* - Shows approximate location of existing structures and their estimated size and shape.

- *Ownership* - Delineates the amount of property owned, the approximate acreage, and the owner's name at the time the map was completed.
- *Slope* - Indicated steep slope areas (above 30%), based on most accurate information available.
- *Zoning* - Shows existing zoning.
- *Ridge Line Protection Areas* - Indicates location of ridgelines and ridgeline protection areas as defined in the Foothills and Canyons Overlay Zone.
- *Stream Buffer Zones* - Shows the 100-foot stream buffer zone for development.

All maps were created using the most recent and accurate information available at the time the maps were completed. The maps are for planning purposes only and are not intended to substitute for site-specific data. They are available for review at the Salt Lake County Planning Division Office, 2001 South State St, Suite N-3700, Salt Lake City, Utah 84190-4200. Maps may also be purchased upon request. Requests must be made at least three (3) days prior to pickup. Price quotes available through the Planning Division at (801)468-2061.

The Salt Lake County Surveyor's Office is currently updating the aerial surveys of Salt Lake County. These surveys contain updated contour intervals that range from 2' to 5'. It is likely that in the future Emigration Canyon will be surveyed and aerial photographs with contours as small as 5 feet will be available. The Salt Lake County Surveyor's Office has limited funding, and a survey of the Canyon will be completed only when funding becomes available.

## *Identified Issues*

In February of 1997, the Salt Lake County Planning Division held a public meeting with the residents, property owners, and interested parties of Emigration Canyon. The purpose of this meeting was to inform the public as to the efforts of Planning staff in the update of the Canyon General Plan. This meeting also gave people the chance to brainstorm ideas and issues they felt important and would like to see addressed in the Plan.

During and after the identification of issues, the planning staff explained that not all issues may be addressed in the Plan. There are certain limitations of a general plan, which do not allow it to deal with all issues the residents and property owners would like. Likewise, not all issues raised in the public meeting were planning issues. Staff determined which of the identified issues could be included in the Plan. Issues, which are addressed in the Plan, are given reference to a section or sections of the Plan. Those issues, which were identified but could not be addressed are explained below and grouped according to the organization of the Plan. The following is a list of those issues, which have been grouped into categories that follow the format of the Plan:

### **A. Introduction**

#### Preface

#### *General Plan Issues*

- Following the General Plan - Limit Variances, Put Teeth on Enforcement - (See Implementation Section)
- Down zoning - (See Zoning under the Implementation Section)
- Can the Plan Stay if Annexed? - Should the Canyon be annexed into Salt Lake City, the decision to retain this Plan as the city's plan rests with the legislative body of Salt Lake City. In cases regarding annexation of areas with existing plans, municipalities often retain the existing plan until such time as a new plan can be created and adopted.

#### Community Description

#### *Community Services and Utilities*

- Can We Plan For Fire Protection? - (See Foothills and Canyons Overlay Zone, Foothills and Canyons Site Development and Design Standards, and Community Description Sections)
- Police Protection - (See Community Description Section)
- Neighborhood Watch - Although crime figures in the Canyon are very low, Canyon residents interested in organizing a neighborhood watch should contact the Salt Lake County Sheriff's Office listed in the Community Services and Utilities Section.
- Fire Engine Access - Fire engine access is addressed as part of the Foothills and Canyons Overlay Zone development review process, which includes Fire Department requirements. Development or access points will not be approved unless adequate emergency vehicle access is secured.

### **B. Goals and Policies**

#### Environmental Quality and Preservation

#### *Water Supply and Usage*

- Culinary Usage - (See Environmental Quality and Preservation Section)
- Water Supply Source Protection-Limiting upper area development - (See Environmental Quality and Preservation Section)
- Fire Protection - (See Community Description)
- Year-round Stream Flows - Salt Lake County Flood Control maintains a record of ongoing flows at the mouth of the Canyon. This record is updated monthly from a stream flow monitoring station at the mouth of the Canyon. Data collected is available upon request at the Salt Lake County Flood Control office. The County has no authority regarding stream flows or flow data. Inquiries regarding flow data can be directed to the Salt Lake County Engineering/Flood Control Division.

- Irrigation Water and Water Availability - Water usage relating to landscaping or other outdoor use is controlled by water rights issued by the Utah State Engineer - Division of Water Rights. Once a right to use water is established, the State may issue a permit to drill a well or allow water to be diverted from other source, such as a spring or a stream. The Emigration Improvement District (EID) and other private organizations that own water rights may lease a water right to a water user or may simply allow use of their water. Since availability of water for these users is controlled by private individuals or the EID, it is not addressed in this Plan.
- How Much Water is Available? - The amount and availability of water in the Canyon are two important issues. Both factors must be considered in regard to water use. The most common source of water in the Canyon is from wells, although some springs still provide water for culinary or irrigation purposes. A few grand fathered water rights allow pumping from Emigration Canyon Creek. Pumping from the creek is strictly prohibited without a specific right issued by the State Engineer's office.

Hydrologists have studied <sup>1</sup> volumes of surface water and <sup>2</sup> estimates of underground water sources in the Canyon and have come to the conclusion that if a moderate amount of water is allowed to flow in Emigration Canyon Creek in the dry seasons of the year, there is sufficient water flow within the Canyon to provide for approximately 725 dwelling units.

The Utah State Engineer's Office has had jurisdiction over the appropriation and allocation of surface water since 1903 and ground water since 1935.

In 1968, the State Engineer became aware that far more water rights were granted on paper than there was actual water in the Canyon. This resulted in the State Engineer placing a moratorium on the issuance of further water rights. This moratorium has played a major role in water development. Those wishing to develop in Emigration Canyon became aware that they had two water problems to solve: <sup>1</sup> how to obtain the water right, and <sup>2</sup> how to obtain a source of water of sufficient quality and quantity to serve their needs.

Fortunately, a large portion of the right that have been issued are owned by the EID and the Utah State Parks Department. These entities have managed the

rights they own effectively, by ensuring that the use of water in the Canyon is not overextended. Persons who wish to make inquiries regarding water rights within the Canyon should contact the Utah State Engineer - Division of Water Rights. The EID is another valuable source of information and a possible lessor of water rights.

#### *Water Quality and Conservation*

- Stream Pollution (Anti-Degradation Law) - (See Environmental Quality and Preservation Section)
- Compliance with Drinking Water Source Protection Regulations - (See Environmental Quality and Preservation Section)
- Stream Buffer vs. Septic Systems - (See Environmental Quality and Preservation Section)
- Conservation - (See Environmental Quality and Preservation Section)
- Canyon-Wide Water System / Water Sewer Provisions - The EID has made two major attempts to create a canyon-wide water system. The latest was in November of 1995, with a bond election, which was defeated. Salt Lake County is not involved in any proceedings, which would initiate a proposal for a canyon-wide system, and it is therefore not part of the Plan. Any inquiries regarding a water system should be directed to the Emigration Improvement District. The County will also not be involved in any sewage system implementation proceedings. Although the Plan has a policy for septic tank installation in the Canyon's sensitive environment, it does not address a sewer system. While the intent of the Plan is to be amenable to future conditions, it must respond to current Canyon conditions. In the long-term, it may be in the best interest of the Canyon environment to provide a canyon-wide water and sewer system. However, this should be done with the support of the Canyon residents and property owners.

#### *Community Values & Character*

- Quiet - (See Foothills and Canyons Overlay Zone Section)
- Wildlife Protection - Diversity - (See Environmental Quality Preservation Section)

## Transportation

### *Existing Conditions / Uses*

- Road Capacity; Identify levels of service - (See Transportation Section)
- Public Transportation - UTA Route - (See Transportation Section)
- Recreational Parking - (See Open Space and Recreation Section)
- New Roads to Fit County Standards (Even if Private); Adopt New Standards - (See Transportation Section)
- Correct Sub-Standard Roads - (See Transportation Section)
- Impacts From Little Dell - Traffic, Olympics, etc. - (See Transportation Section) The advent of the Olympics are not directly addressed due to their temporary condition. The Canyon is not intended for any Olympic venue and traffic will not be directed into the Canyon. Any traffic occurring due to the Olympics will be incidental. Question should be directed to the Salt Lake Organizing Committee.
- Vehicular Access (Automobile, Police, Fire, Emergency) - Vehicular access is addressed in the Transportation Section of the Plan. There are also existing county development standards to which newly created vehicular accesses must comply.
- Institutional Controls - The controls which are available to regulate traffic and transportation issues, above and beyond those mentioned in this Plan can be found by contacting the Salt Lake County Assistant Transportation Engineer.
- Pinecrest Turnaround (would like to see it) - A turnaround in the Pinecrest area has been installed since the time this comment was made.
- Toll Road - The question of making part or all of the road in Emigration Canyon a toll road does not fall under the responsibility of the Plan. The issues regarding placement of tolls, toll amounts, dispersal of collections and the collecting agency would be dealt with by Salt Lake County which has jurisdiction over the road. The county would address specific plans for a toll as they are introduced. Since none have been made, this Plan makes no recommendation regarding a toll road.

### *Safety*

- Concern for Bikers / Bike Safety - (See Open Space and Recreation Section)
- Better Intersections; Safety - (See Transportation Section)
- Safe Entry Onto Road - (See Transportation Section)
- Consider Recreational Users and Residences - (See Transportation Section)
- Speed (motorcycles); Get adequate enforcement - (See Transportation Section)
- Residential Speed Limit on Main Road(s) - (See Transportation Section)

## Open Space and Recreation

### *Open Space*

- Creation of Public Parks - (See Open Space and Recreation Section)

### *Trails / Access*

- Pedestrian Trails (Walking, Biking, etc.) [combine uses] - (See Open Space and Recreation Section)
- Trail System Over Public Lands with Parking and Access - (See Open Space and Recreation Section)
- Existing Access - Which access points should stay, which should go? - (See Open Space and Recreation Section)
- Identify Potential R.O.W.s in Existing Residential Areas; Vacate R.O.W.s - i.e. Pinecrest - See Transportation Section)
- Off-Road Vehicle Trespass - (See Open Space and Recreation Section)
- RNA (Research Natural Area) - Although the Trails Plan discusses possible sites and locations of trail facilities, no mention is made of the nearby Red Butte Canyon, which is a protected Research Natural Area. From 1863 to 1969, Red Butte Canyon was the watershed for Fort Douglas. As a protected watershed, the lands were kept free from grazing, farming and other human-impact activities. When the Army declared these lands surplus in 1969, the U.S. Forest Service assumed responsibility for the Canyon. It has been a designated RNA ever since. One of the goals of the RNA is to protect and preserve a representative array of significant ecosystems and their inherent processes as baseline areas. Another goal is to



conduct research on ecological processes in these areas to learn more about the function of natural ecosystems versus manipulated or disturbed ecosystems. The Plan cannot dictate policy with regard to Red Butte, however it can emphasize the importance of retaining this natural area and recommend that trail and other recreational users be careful not to disturb the area and be respectful of the RNA and its boundaries in general.

- Right of Way Identification:
  - Union Pacific (Actual location) - During the course of our research, it was not possible to determine the exact locations of the rights-of-way for this company. Many rights-of-way do not have exact locations defined. Due to running through publicly owned lands, many rights-of-way are defined generally. Exact locations are not known, unless a specific engineering survey was done.
  - AT&T - The rights-of-way for AT&T are best described on individual property plat maps, available through the Salt Lake County Recorder's Office. Although the locations of these rights-of-way are important, it is not possible to address them in the Plan. The restriction of uses on these rights-of-way may be found with the company owning the right-of-way, or the Salt Lake County Recorder's Office.
  - Chevron - During the course of our research, it was not possible to determine the exact locations of the rights-of-way for this company. Many rights-of-way do not have exact locations defined. Due to running through publicly owned lands, many rights-of-way are defined generally. Exact locations are not known, unless a specific engineering survey was done.
  - Questar - During the course of our research, it was not possible to determine the exact locations of the rights-of-way for this company. Many rights-of-way do not have exact locations defined. Due to running through publicly owned lands, many rights-of-way are defined generally. Exact locations are not known, unless a specific engineering survey was done.

#### *Recreational Uses*

- Hikers, Bikers, Runners - (See Open Space and Recreation, Transportation Sections)
- Encourage/Discourage Use of Canyon for Recreation - (See Open Space and Recreation Section)
- Little Mountain - Site for Winter Recreation? (Sanitation, Parking) - Little Mountain as the site for winter recreation was not addressed in the Plan because it falls outside of the range of the Plan's influence. If any plans or policies were to exist, they would stem from the Salt Lake County Parks and Recreation Division. Should the Parks and Recreation Division develop a policy for the area, the Plan's policies for existing recreational areas would apply.
- Joint Use of Camp Kostopulos - This private non-profit organization operates the facility, which serves mainly as a facility for the disabled. The organization has allowed the Emigration Community Council and the Emigration Improvement District to hold meetings there. When not in use the facility may be rented out to other groups who contact Camp Kostopulos. The Plan has no authority to create policy for the grounds and therefore contains no policy regarding its use.
- Can the County TAKE Sorenson Flats and Develop a Soccer Field? - Salt Lake County has no means or intention of taking the Sorenson Flats area. The only realistic expectation for the county to acquire property would be for a park. The Parks and Recreation Master Plan indicates no current need for a park within the Canyon. Future Canyon park needs indicate that a small park may be appropriate in the future. See the Recreational Trails and Open Space Section for further details.
- Posted: No Hunting or Shooting - Prohibit Discharge of High-Powered Rifles - Posting of signs prohibiting hunting or the discharge of firearms is the responsibility of the Salt Lake County Sheriff's Office. Requests for signs can be made by the residents and property owners of the Canyon. The Sheriff's Office will investigate requests, and if found to be warranted, signs may be installed along the county right-of-way.

## Natural Hazards

### *Topography and Slope Stability*

- Slope Stability and Grade - (See Natural Hazards Section)

### *Soil-Related Hazards*

- Landslides, Rockslides - (See Natural Hazards Section)

### *Hydrology and Flooding*

- Flood Hazards - (See Natural Hazards Section)
- Avalanche - (See Natural Hazards Section)

## Land Use Policies

### *Residential Development*

- Single-Family Residential Only (in the entire canyon) - (See Foothills and Canyons Overlay Zone, Land Use Policies Sections)
- Existing Lots of Record vs. New Development - (See Foothills and Canyons Overlay Zone, Community Description Sections)
- Identify Development Suitability - (See Foothills and Canyons Overlay Zone, Community Description Sections)
- Can a Limit Be Placed on Development? - (See Foothills and Canyons Overlay Zone Section)
- Setbacks-Dwelling, Vegetation - (See Foothills and Canyons Overlay Zone Section)
- Proximity to S.L.C. May Produce Significant Development - (See Foothills and Canyons Overlay Zone Section)
- Wasatch Canyons Development Standards - (See Foothills and Canyons Overlay Zone Section)
- Impacts of Utility Development - Impacts from utility development have recently been addressed in the new Foothills and Canyons Overlay Zone Ordinance, Chapter 19.72 of the Salt Lake County Zoning Ordinance.
- Should We Replace Eclectic Character of Canyon? - (See Foothills and Canyons Overlay Zone and Foothills and Canyons Site Development and Design Standards Sections)

- Start Future Financing Now - This comment was directed at finding ways to plan for funding of any improvement projects in the Canyon to avoid lengthy funding strategies which delay or sometimes defeat improvement efforts. The Plan has made recommendations on specific efforts, which would promote an advance effort for financing such things as open space acquisition and preservation.
- Long Run Acquisition of Undevelopable Areas - (See Open Space and Recreation Section)
- Exchange of Forest Service Lands - (See Open Space and Recreation Section)
- Identify Focal Points - Purchase, Protect - (See Open Space and Recreation Section)
- 501-C3 groups - (See Open Space and Recreation Section)
- Ordinances - (See Foothills and Canyons Overlay Zone and Foothills and Canyons Site Development and Design Standards Sections)
- Policies - Sensitive lands policies are contained throughout the entire Plan. Within each section of the Plan, various elements are broken down into specific goals, objectives and policies for each element in the Plan.

### *Commercial Development*

- Commercial Zoning/Development in the Canyon - (See Land Use Policies Section)
- Work With Development-Existing Commercial; Safety & Compatibility of Use - (See Land Use Policies Section)
- Short-Term Rental Policy - The Plan makes no recommendation regarding short-term rentals. Short-term rentals are governed under the Salt Lake County Zoning Ordinance, with conditions of rental defined in Section 19.76.280.
- Bed and Breakfast Policy - The Plan makes no recommendation regarding the operation of Bed and Breakfast facilities. They are governed under the Salt Lake County Zoning Ordinance.

## *The Planning Process*

The Emigration Canyon General Plan is part of an on-going planning effort that began more than 30 years ago. In 1965, the county adopted a General Plan for the entire Salt Lake Valley. The Plan divided the valley into seven large planning districts, including the Canyons District. The Planning Division is now preparing detailed plans for smaller areas or communities within the various districts. This General Plan is in effect, an addition to the Salt Lake County General Plan for the Canyon's Planning District. It is intended to be the key resource and policy guide for elected officials, developers and interested citizens.

The planning process has involved the Planning Division Staff, the Emigration Canyon Advisory Committee, area residents, concerned citizens, and property owners.

Including diverse representation and differing viewpoints will ensure the Plan's success. The Emigration Canyon Advisory Committee is a task force group composed of various professionals, property owners, residents and interested individuals. The group served in a voluntary capacity to address all issues pertaining to the creation of this Plan. The policies and recommendations found in this Plan were developed as a result of the many hours of hard work contributed by the committee.

As this Plan is carried out, the final responsibility for accomplishing the goals is placed on the elected officials who develop and implement the public policies that will guide the community's physical development. These officials must ensure that the day-to-day decisions relating to the community are made with due consideration given to long-term effects.

The existing characteristics of the community have been carefully researched by the group's involved, state agencies, and departments of the Salt Lake County Government. This information is intended to provide an accurate picture of the

community, its problems, and attributes, as well as a starting point from which the goals, planning policies, and implementation measures were formed.

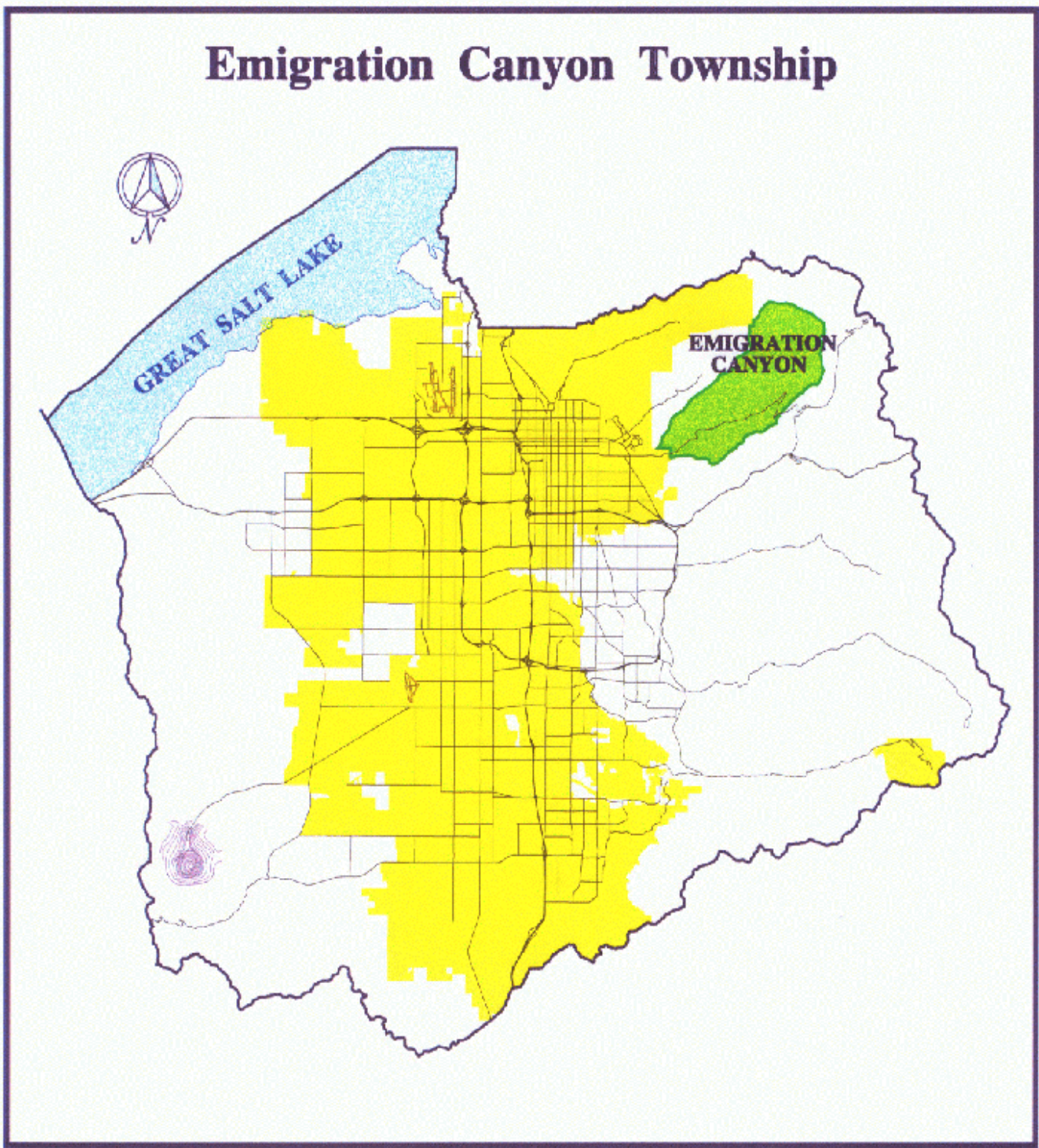
Development proposed in Emigration Canyon should conform to the maps, policies and recommendations in this Plan. To determine which of the policies apply, all sections and maps of this Plan should be reviewed. Additional maps and technical documentation used in the preparation of the Emigration Canyon Township General Plan are available at the Salt Lake County Planning Division.

The Plan does not dictate final authority on every individual land use question. However, it represents a comprehensive study and should be used to guide decisions.

Flexibility in the Plan can accommodate the changing trends within the community. The General Plan contains policies, which have been deemed appropriate at a certain point in time, but cannot provide for all future changes and demands. For this reason, the Plan should be reviewed and updated every five to ten years to assess and consider unforeseen and changing circumstances.

As private land in Emigration Canyon continues to develop, the residents should be involved in the development review process.

The unique identity and sensitive nature of the Canyon should be maintained and protected. The residents of the Canyon voted by a super-majority of the registered voters to become a township, and remain as unincorporated county. The Canyon's township status has allowed it to have greater and more direct involvement in planning and zoning issues. The most obvious example of this involvement is the creation of the Emigration Canyon Township Planning Commission. This seven-member board holds hearings and makes decisions on land use for Emigration Canyon.



**Figure 1** The Emigration Canyon Township is located in the northeast part of the Wasatch Mountains. The study area covers more than 18 square miles or approximately 12,000 acres.

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## Community Description

***The Emigration Canyon has great historical significance. It is also a residential community. Following the development guidelines and policies of this Plan will foster balance between development and the natural setting, while preserving the Canyon's visual and historical value.***

### Community Location

The Emigration Canyon Township General Plan study area encompasses a large area located in the northeastern portion of the Wasatch Mountains. The Canyon boundary is bordered by Salt Lake City on the west and follows the City Creek Canyon and Red Butte Nature Reserve Area boundaries on the north and northeast, and Summit County on the east. The southern border is the ridgeline separating Emigration from Parley's Canyon, which runs in a southwesterly direction to the Salt Lake City border. The entire Canyon study area encompasses approximately 12,000 acres.

### Area History

The first travelers through the Canyon were the animals that inhabited the area. These animals followed the natural contours of the terrain and forged trails. These trails were then used by the Ute and Shoshoni Indian tribes for hunting and travel.

It is believed that the first Anglo explorer to make an account of the Canyon was John C. Fremont in 1845. Knowledge of Fremont's and previous explorer's discoveries led to other travelers coming west.

In 1846, four major parties were en route to California. One of these parties, known as the Donner-Reed Party was to take the route, which led through what is now known as Salt Lake. The leaders of the party were led to believe that traversing the mountains was possible, largely by the writings of Lansford W. Hastings in his publication entitled "The Emigrants

Guide to Oregon and California." This guide claimed that passage through the mountains of the Wasatch Front was easily made, although Hastings had never actually done so. After coming down the western slope of Big Mountain with great difficulty, the Donner Party continued on through Mountain Dell, over Little Mountain, and then through Emigration Canyon.

The vegetation and growth at the mouth of the Canyon was very dense. After forcing their way through 4½ miles of dense brush and boulders towards the canyon mouth, the party decided to cut and chop their way over what is now known as Donner Hill on August 22, 1846. Today a marker exists on the site where they dragged their wagons and supplies over the hill with doubled teams of oxen on almost every yoke in their 23-wagon train. The delay through Emigration Canyon resulted in a three-week delay for the Donner Party on their way to California, and contributed to eventual demise of the Party.

The very next season the Mormon pioneers made their way towards Salt Lake, following the Donner Party route. When they reached the mouth of the Canyon, they found it densely overgrown and strewn with boulders. One of the leaders,

Orson Pratt, instructed a work detail to remove the heavy brush and clear the canyon mouth. They accomplished this in approximately four hours.

The Canyon received its current name from the role it played as the initial route used by the Mormon Pioneers and others to enter the Salt Lake Valley between 1847 and 1869. Today the Last Camp Site marker exists, marking one of the historic camps of the Mormon Pioneers on July 23, 1847 before entering the

***It was evident early on, that the Canyon held great value as a place to retreat from the pressures of daily life, and its beauty is still enjoyed today.***

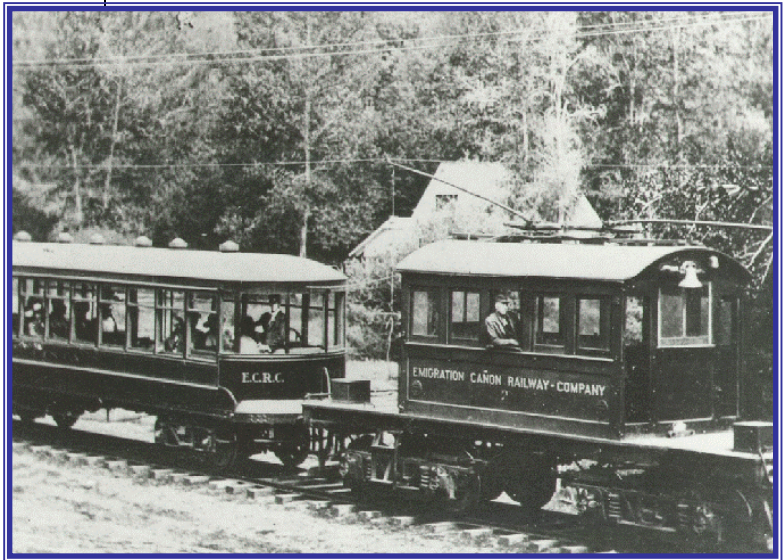
valley the next day. As the pioneers were busy establishing their homes and a new city, the Canyon was becoming more and more useful as a resource. Once the Pioneer Trail was cleared, the routes that led from the east to the west allowed Emigration Canyon to act as the gateway to the town now forming in the Salt Lake Valley.

With the Mormon presence in the Salt Lake Valley established, there came a migration of many non-Mormon people through Emigration Canyon to Salt Lake on their way to California and the gold rush, between 1849-1851. A few years later, in 1858, the United States government was at odds with Utah and growing reports of a strong Utah force. General Albert S. Johnston was sent to suppress the Mormon threat in the area. Brigham Young, the Mormon leader at the time, planned to use Emigration Canyon as a second line of defense against any attack. Johnston's army did travel through the Canyon and eventually on to Camp Floyd, without incident.

In 1860, the Pony Express was established to transport mail over great distances in a short period of time. The Pony Express traveled through the Canyon from Hank's Station at Mountain Dell to the Salt Lake Station. Approximately 15 months after its founding, the Pony Express had ended with the completion of the transcontinental telegraph in 1861.

Homes began being built in the Canyon as early as 1852, when John Killyon and D.H. Wells (who eventually became governor of Utah) were given lumber grants for using the Canyon's resources. A

year-round residence was established in that year to supervise timber-harvesting efforts. Homesteading began in the Canyon in the 1870's, and continued through the early 1900's. In addition to homesteading, grants of private land were given as partial payment for the new Union Pacific Railroad, which came in 1869. Thus the amount of private land in the Canyon increased.



*Emigration Canyon Railway Company.  
Photo courtesy of the Utah State Historical Society.*

Timber was brought down through what is now Killyon's Canyon, to a sawmill at Little Mountain, and then processed timber was brought down to the city below. In addition to timber, there was also an abundance of lime in the Canyon, which was quarried and burned in four limekilns, which existed in the Canyon. Evidence of early quarrying exists today in some exposed rock areas.

The Canyon was also becoming popular as a recreational site. A German-born man named Henry Wagener built what became Wagener's Brewery in the lower portion of the Canyon in 1864. This was one of the largest breweries in the west and the site for summer social gatherings outside the confines of the hot valley below. It was a popular site with the soldiers stationed at the nearby Camp Douglas. The brewery was destroyed by fire in 1914.

In 1907, the Emigration Canyon Railroad was built by LeGrand Young. The railroad originally brought red and white stone from several quarries in the Pinecrest area to what are



*E.C.R.C. carried both passengers and stone.  
Photo courtesy of the Utah State Historical Society.*



*Typical Summer Cabin.  
Photo courtesy of the Utah State Historical Society.*

now the University of Utah stadium parking lots, where it was then loaded on to mule-carts to be carried into the city. This stone was used in the construction of the old Salt Lake City Library (now the Hansen Planetarium.) People began riding the empty stone cars up into Pinecrest for recreational getaways. The railroad company then purchased open-air cars for passenger transport in to the Canyon.

This same year Strevell and Patterson, two local hardware merchants, built the Pinecrest Bed and Breakfast Inn, which was located approximately three miles further into the Canyon than the present Pinecrest Bed and Breakfast Inn. It was a lavishly designed and decorated building, with grounds to match. People could dine and dance in this resort, which was easily reached by train. With all of the attention and attraction to the Canyon area, the Pinecrest “community” was born. Many small lots were created nearby and sold for “tent houses” or small cabins.

It was evident early on, that the Canyon held great value as a place to retreat from the pressures of daily life, and its beauty is still enjoyed today. The railroad accommodated the recreational users by selling day fare tickets known as “Campers Tickets.”

The railroad did not last forever though. In 1917 it was dismantled and sold, due to its inability to make a profit. The availability of newer, inexpensive building products, such as concrete, created lack of demand for quarried stone.

The Inn itself came to an end when a small fire broke out in the kitchen in 1949. Although the damage was minor, the Inn was declared off limits by the Fire Department. When the rubble that remained caught fire in 1951, it created a terrific blaze that led to the rumor that the Pinecrest Bed and Breakfast Inn was destroyed by fire.

As automobiles became more common, the Canyon became more accommodating to year-round living. The once popular tent houses and small cabins were renovated to some degree to become cabins, which then eventually became year-round residences.

To serve this growing population of Canyon users, and now some residents, Ruth Ashley and her brother built a small country store. Since it was first opened as the Little Mountain Café, it has been known by many names as Little Mountain Café became Ashley’s which became Canyon Pines, which became McCarty’s, which became Crompton’s Roadside Attraction, which again became the Little Mountain Café, as it is known today.

This was not the only place to get a bite to eat in the Canyon.

After World War II, Ruth Evan brought a streetcar/diner up to the Canyon, near the turn by what is known as Rattlesnake Point. Today Ruth’s café still exists on the same site. In 1977 another restaurant was built next to Ruth’s. The Cattle Baron, as it was called, eventually became Lumber and Lace, and is now the Santa Fe restaurant.

Other establishments which existed in the Canyon were the Skycrest Inn, two different inns both called the Emigration Inn, a YWCA girls camp, and a small store at Kelvin Grove. Today another Pinecrest Bed and Breakfast Inn exists which was originally built as a home by William Henderson. Pinecrest white sand stone was used in its construction.

The present-day Pinecrest Bed and Breakfast Inn was the source for rumors of “devil worshipers” living in the Canyon. Two performers from California, moved into the house and placed a statue of Pan, complete with horns and tail, in the garden. The two also had gates brought in directly from MGM studios in Hollywood. When the ornately crafted gates were painted bright red, rumors grew. The home was converted to a Bed and Breakfast in 1985 and named the Pinecrest Bed and Breakfast Inn after its famous predecessor.



The Canyon has served in many capacities besides the ones listed here. It was part of the Federal Sheep Driveway, where sheep were being driven through the Canyon to the Rio Grande Railroad station. In addition, the Canyon was used as a summer pasture for sheep by two families, the Gilmors and the Bertagnoles. The Canyon, with its cold climate and altitude, was also the site of a small ski slope at Little Mountain. Skiers were pulled up by a tow rope, which was first operated manually and then eventually by machine. Elsewhere in the Canyon there was an ice skating pond (near what is known as Perkins Flat), a golf course, riding stables and a donkey rental. Unlike other resort canyons in the Valley, Emigration Canyon maintains a large residential population, as well as its natural beauty.

Sources for historical information include:

*Stan Fishler, Cynthia Furse, Cal Schneller, Salt Lake County Planning Division, 1985 Emigration Canyon Master Plan, University of Utah Film Production "The Canyon in Transition: Development and Changes in Emigration Canyon," and Mr. & Mrs. Fred Smolka.*

## Population

Characteristics of a community population are very important in determining future needs and making land use decisions.

Past population trends in Emigration Canyon indicate that residential growth has increased greatly within the last 10 years. Before this time, growth has been sporadic, limited mainly to small scale, individual residential structures. Within the last ten years, however, the Canyon has seen increased individual lot development, particularly within two Planned Unit Developments, Emigration Place, and Emigration Oaks.

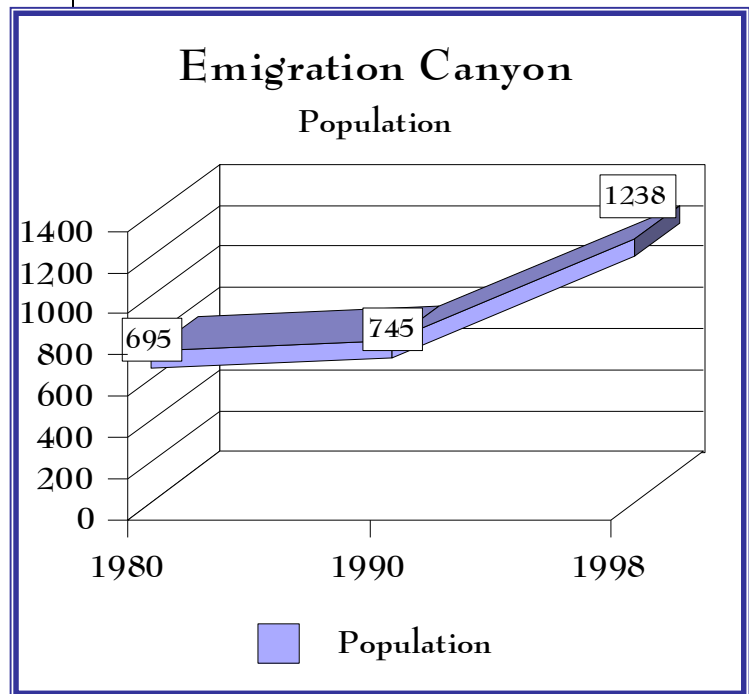
The community population has increased steadily since the late 1980's, mainly in the two new subdivisions. Although growth has occurred at a faster rate in the Canyon in the last ten years, as compared with the development trend in the rest of the Salt Lake Valley, growth has been slow.

Population of the Canyon at year's end 1998 is estimated at 1,238 persons. This figure was derived using the 1990 census data for population and projecting the average number of occupants for new homes built in the area.

The average age of Canyon residents is 35.4 years. This number is taken from the 1990 census and is higher than the countywide median age of 27.8 years. Approximately one-fourth of the Canyon residents are school age children (under 18 years). The age group of 35 to 44 years dominates the Canyon.

Figures from the 1990 Census indicate that there are approximately 425 housing units, averaging 2.8 persons per household. This average is lower than the county average of 3.2 persons per household. More recent counts are now somewhat higher, between 432-440 homes, with relatively the same number of persons per household.

The evident ramifications of population projections in the Canyon are important when considering the unique canyon environment, and the recent amount of interest for residential development, given the amount of available water and other amenities. Uncontrolled population growth and housing development, as well as increased Canyon use by non-residents is a major concern to community residents. The population projections could represent substantial change when considering the size of the community. The projections will also relate to the potential build-out of the Canyon, how quickly development will take place, and the overall density of development allowed.



**Figure 2** Emigration Canyon has seen considerable population growth in the last decade.

It is anticipated that the Emigration Canyon Township Community will continue to grow. Projections should not be construed as definitive counts, because of their dependency on the accessibility of future development to such things as water, sanitation services, access, available land and conformance to all zoning and site regulations. The ability of Salt Lake County to provide the many municipal services, roads, and other improvements will also affect the growth rate. The population may grow to more than 1,400 persons by the year 2000, and possibly more than 2,000 by 2010. These projections are based on an average of 18 homes per year and the current family size of 2.8 persons per household. Although development has fluctuated from year to year, 18 homes is the average of the total number of homes built since 1990. Emigration Canyon development is limited by natural and geological constraints, and development figures may be more or less based on individual site review, site-specific geotechnical reports, and advances in building technology. The Canyon is located in the Foothills and Canyons Overlay Zone, and is subject to scrutinizing review to address life safety and compatibility issues.

### General Land Use

The Emigration Canyon Township study area includes approximately 12,000 acres. Most of this acreage is currently undeveloped.

Approximately 4,800 acres, or 40% of the total land is privately owned. The rest of the land in Emigration Canyon is publicly owned or managed—either by the U.S. Forest Service, which manages around 4,100 acres (34%), or Salt Lake City, which owns approximately 3,100 acres (26%).

Privately owned land has been developed into a variety of residential lot sizes. Although most of the privately owned acreage remains undeveloped, the portion of land that has been developed mostly surrounds the main thoroughfare or has access to it. Most of the 430 or so housing units existing in the Canyon are single family. Approximately 30 multi-



*The Canyon has a unique and fragile environment.*

family housing units now exist in various areas in the Canyon.

Emigration Canyon has limited commercial development. The existing commercial services include Ruth's Diner, the Santa Fe Restaurant, the Little Mountain Café, the Pinecrest Bed and Breakfast Inn and property owned by the Sorenson Development Company. It is unlikely that commercial development will expand beyond these sites, due to conditions placed on the existing commercial zones the lack of commercial zoning available elsewhere in the Canyon, and the limited need for new commercial zoning.

Emigration Canyon is also the site of Camp Kostopulos, a 15-½ acre camp run by Camp Kostopulos, Inc., a non-profit organization that provides recreational opportunities for disabled people of all ages.

Emigration Canyon contains many small lots-of-record (which are non-conforming to the existing zones such as FR-20), which have existed since the early 1900's. Most, if not all of these lots, some of which are only 25 feet wide, were originally intended to serve as camping lots. They fall in the FR-20 zone, which requires a minimum of twenty (20) acres for newly created lots to develop a structure. One major factor, when considering the development potential of

***Zoning was first introduced in the canyon in 1951. Today, the predominant zoning classifications in the Canyon are FR-0.5, FR-1, FR-5, FR-20, and C-2/zc.***

these lots, is that most of them fall within the Foothills and Canyons Overlay Zone, which prohibits development above a 30% slope. This Overlay Zone establishes specific site development and design standards for the Canyon, that will preserve the character of the mountain terrain, minimize soil and slope instability, erosion, and stream siltation. The Foothills and Canyons Overlay Zone is discussed in Chapter 19.72 of the Salt Lake County Zoning Ordinance.

Public Lands constitute most of the land area in Emigration Canyon. These lands are owned by the U.S. Forest Service and Salt Lake City. These entities will most likely preserve the pristine and natural condition of lands in their jurisdiction. All of the land owned or managed by these groups, as well as all lands in Emigration Canyon have been designated Anti-Degradation Areas by the Salt Lake County 208 Watershed Plan and the Utah State Code. This designation may ensure that much of the publicly owned or managed land remains in its natural state. These lands contain many of the trails that exist in the Canyon. These trails are identified in the Salt Lake County Trail Access Plan. Trails in the Canyon are generally multi-use designated trails, accommodating a mix of hiking and biking activities. Policies regarding future use of trails and improvement of potential trails are outlined in the section titled “Trails Access.”

## **Zoning**

The Salt Lake County Zoning Ordinance and its associated maps define and identify various zone classifications. Zone classifications define various land uses and maps indicate zone boundaries.

Zoning was first introduced in the Canyon in 1951. The Canyon underwent a major rezoning to reflect the appropriate land uses and lot sizes compatible with the canyon environment. This rezoning occurred in July of 1987, and remains relatively unchanged. Today, the predominant zoning classifications in the Canyon are FR-0.5, FR-1, FR-5, FR-20 and C-2/zc zones.

Detailed information regarding zoning, including explanations of the various zones, can be found in the Land Use Policies Section, under Zoning, page 65.

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***SEE PROPERTY OWNERSHIP MAP***

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## *Public Services and Utilities*

***The perception of the quality of life in a community depends, in part, upon the quality of the fire, sheriff, schools, emergency services, and utilities. At the same time, the Emigration Canyon Community area has a unique character that should be preserved. Therefore, these services should be compatible with the mountain environment.***

The existing community service facilities that are located outside of the area should be used to the maximum extent. The key services and facilities that benefit the community are fire and police protection, schools, and water and septic systems. The continued use, availability and maintenance of these systems will contribute to maintaining and improving the quality of life in the Canyon.

### **Culinary Water**

#### Water Development History

Over the years Canyon residents have obtained water for culinary use mostly from wells or springs located on their individual properties. Some residents joined together to create small-localized systems. To date, there have been two major attempts to create a canyon-wide water system. The small systems and attempts to develop canyon-wide water systems will be discussed later in this chapter.

The early pioneers found abundant springs near the creek that provided for their needs quite adequately. Homesteaders chose plots of land that included these readily usable water sources. As more cabins were built, new sources were sought. Shallow wells were dug by hand in the areas near the stream where it was apparent that the water table was close to the surface. Later, some rudimentary wooden pipes were used to bring water from higher elevations down into the lower canyon. Hand-dug ditches that extended for several miles down the Canyon sometimes met

irrigation needs for gardens. These ditches were shared and residents (like many farmers) would wait for their “water turn,” which was a certain time they were allotted to use water from the ditch. Property owners began drilling wells up to two hundred feet deep beginning in the 1940's.

The Emigration Improvement District was organized by the Salt Lake County Commission in 1968, at the request of several residents, for the purpose of installing a canyon-wide water system and canyon-wide sewer system. Many Canyon residents wondered if there was a need for the systems. To answer the question of whether or not water and sewer systems were needed, the citizens of Emigration Canyon formed a fact-finding subcommittee in 1969, to investigate existing conditions.

The subcommittee conducted a survey of existing water sources. 61 out of 125 total water system owners participated in the survey. Of the 61 sources tested, 17 wells or springs were less than 50 feet deep. 17 were between 50 and 100

feet deep. 16 were over 100 feet deep, and 9 were undetermined. This sample was substantial enough to give a fairly good idea of the types and depths of water systems in the Canyon at the time. It is interesting that of the wells tested, 25 of the 61 wells contained coliform counts and were therefore considered polluted. There was seemingly no correlation between pollution by 1) geographical location and 2) depth of well. The conclusion was that pollution of a well could occur at various geographical locations in the Canyon, and greater depth did not seem to assure a “safe” water source. Some very shallow wells or springs seemed to deliver excellent water.

***Public services and facilities should keep pace with growth.***

The number of wells drilled for single-family use has escalated in the past 30 years. By 1997, the number of home was over 400, but approximately 120 are served by small community systems.

### Existing Conditions

Essentially all culinary and secondary irrigation water in Emigration Canyon is drawn from underground wells, with the exception of a few springs mentioned earlier. An exception to users having water sources within the Canyon is the Emigration Place Planned Unit Development. The homes in Emigration place receive their water from Salt Lake City. The primary service district in the Canyon is the Emigration Improvement District (EID). The EID was formed in 1968 for the purpose of studying costs, needs and impacts of delivering water to the Canyon. Today this three-member board serves the Canyon by prudently managing the EID water rights and overseeing activities in the Canyon as they relate to water use.

The Emigration Improvement District leases its water rights to individual homeowners, water companies within the Canyon, and to the Utah State Parks Department. The Parks Department has the right to use the majority of the water that runs out of the mouth of the Canyon for irrigation within Pioneer Trails State Park. Several small private companies such as the Freeze Creek Water Company, Pinecrest Pipeline Operating Company, Spring Glen Operating System, and the Young Oaks Water Company hold water rights and distribute water certificates to their members.

The EID and all others must register with and obtain permission from the Utah State Engineer - Division of Water Rights for any change of point-of-diversion water used within the Canyon, even if a water right is already owned. Adequate water supply and beneficial use of the water must also be proven. An excellent source of water right information relating to groundwater in Emigration Canyon can be found in the document, "PROPOSED DETERMINATION OF WATER RIGHTS IN UTAH LAKE AND JORDAN RIVER DRAINAGE AREA, SALT LAKE COUNTY EAST DIVISION, EMIGRATION CREEK SUBDIVISION" available through the Utah State Engineer's office.

The EID monitors existing water rights as they are used and deducts them from the rights it would otherwise use in an attempt to keep the use within the

Canyon in line with actual water available. Everyone should be conscious of the limited supply and participate in assuring prevention of overburdening the Canyon's natural ability to recharge its water supply. Any decline in the service level or quality of the public water supply that would result from new growth should not be allowed.

### **Fire Protection**

The Salt Lake County Fire Department currently has an "Automatic Aid Agreement" with Salt Lake City. This agreement allows the Canyon residents to be served by the closest fire station to the Canyon, which lies within the Salt Lake City boundary. The Canyon is served by the following stations in order of response:

- Salt Lake City Fire Station #10, 785 Arapeen Dr., S.L.C. UT 84108
- Salt Lake County Fire Station #12, 3612 E. Jupiter Dr. S.L.C., UT 84124
- Salt Lake County Fire Station #6, 2270 E. Evergreen Ave. S.L.C., UT 84109

The conditions relevant to fire protection are the location of development and wildfire hazards, the existing road network, proximity of fire stations to development, the training of personnel and type of equipment, and availability of water.

The Salt Lake County Planning Division held discussions with the Salt Lake County Fire Department regarding a national fire safety code dealing with sensitive lands, known as the Urban-Wildland Interface Code. The regulations found in this code have not been adopted by Salt Lake County. However, it's recommendations when followed, significantly decrease the chances of loss of life and/or property and mitigate wildfire hazards. For more information, contact the Salt Lake County Fire Department.

### **Sheriff**

Two divisions of the Salt Lake County Sheriff's Office currently serve Emigration Canyon:

- Salt Lake County East Patrol Division, 4600 S. 2300 E. Holladay, UT 84117
- Salt Lake County Special Operations Division-Canyon Patrol, 4474 S. Main St. Murray, UT 84107

## Septic Systems

All residents in the study area utilize septic tank systems to dispose of wastewater, although there are some instances of systems with both a holding tank and a septic tank and drain field (dual system).

Salt Lake County Planning Division staff has met with the Jordan River Sub-Basin Watershed Council to discuss water quality issues in the Canyon. Information provided by the council indicates that Emigration Creek violates the standards for total and fecal coliform. Erosion and sedimentation damage to the riparian corridor from construction, as well as septic tank and leach field drainage problems are contributing factors.

The Jordan River Sub-Basin Watershed Council recommended that a study be conducted to determine the feasibility and necessity of a future sewage system.

The Plan supports any effort evaluating the potential risk or benefit from a sewage system, based on community support, evidence of water quality degradation and health and safety issues.

## Storm Drainage System

Storm water drainage currently flows out of the mountainous areas over the natural topography into drainage basins and channels located throughout the study area. Since the entire canyon has been designated an Anti Degradation Area by the Salt Lake City 208 Watershed Management Plan no point discharge is allowed. Point discharges are those in which pollution can be traced to a specific source and outlet. Sedimentation of streams and channels from storm water drainage may impact stream water quality. Storm water problems should be addressed at the planning stages of new development.

Storm drain facilities are required for new development in Emigration Canyon. No storm drain facilities exist along Emigration Canyon Road. The 100 and 500-year flood plains that exist in the Canyon follow the Emigration Stream bed closely.

## Goals

### General

Assure that adequate public services and utilities are provided to support the existing and future population of the Emigration Canyon Township Community.

### Culinary Water

Ensure that the Canyon residents have adequate and safe culinary water.

### Schools

Maintain the existing level of school service to the community.

### Fire Protection

Provide quick and adequate response to fires and fire related emergencies.

### Sheriff

Ensure that the Canyon and its residents and users have adequate and timely police protection.

### Septic Systems

Ensure that septic systems are monitored and maintained at safe operating conditions, and new systems meet all health regulations.

## Objectives

### General

1. Manage and ensure that the provision of public services and utilities is consistent, reliable and adequate for the development it serves.
2. Construct the needed community / service facilities appropriate in scale and design.

### Culinary Water

1. Encourage coordination between the various entities which have some effect on culinary water, such as Salt Lake County, each of the water districts, private water systems, the U.S. Forest Service, the Environmental Protection Agency, the Army Corps of Engineers, the State of Utah, Division of Environmental Quality, Salt Lake City Public Utilities and the City-County Health Department to share and discuss information and policy positions.



2. Provide continuing communication between Salt Lake County and the water companies and districts to inform them of planning efforts, recommendations and policies contained in this Plan.
3. Encourage continued monitoring by the State Division of Water Quality to ensure that the public water supply remains at its current service level and is not adversely affected by new development.

Fire Protection

1. Ensure that all residential and commercial areas of the Emigration Canyon Community can be accessed by the Salt Lake County Fire Department.
2. Minimize the risk of fire damage by proper review of development proposals by the Salt Lake County Fire Department.
3. Ensure that firefighters will have enough water available to fight fires as determined by Salt Lake County.
4. Minimize the risk of wildfire damage and loss of life, along with expanding information programs on fire dangers in forest/urban interface areas.
5. Encourage standards to be adopted on a County level such as those contained in the Urban Wild Land Interface Code.

Sheriff

1. Expand law enforcement in the community as population and development grow.

Septic Systems

1. Encourage new septic systems to strictly comply with building code standards and the provisions of the Foothills and Canyons Overlay Zone pertaining to septic systems.
2. Maintain and improve existing systems which are failing or operating below safety standards.
3. Encourage coordination between Salt Lake County, Salt Lake City-County Health Department, each of the water districts, private water systems, the U.S. Forest Service, the Environmental Protection Agency, the Army Corps of Engineers, the State of Utah, Division of Environmental Quality, Salt Lake City Public Utilities and the City-County Health Department to ensure septic systems are not affecting the public water supply.

## *Emigration Canyon Township Community Vision*

*Visioning is simply a process by which a community envisions the future it wants, and plans how to achieve it. It brings people together to develop a shared image of what they want their community to become. Once a community has envisioned where it wants to go, it can begin to consciously work toward that goal.*

The Emigration Canyon Township Community is one of the most pristine and desirable areas to live and visit in Salt Lake County. The Canyon allows residents and visitors to enjoy a natural setting while being relatively close to the Salt Lake Valley, and its increasingly urbanized areas. A few minutes drive up into the Canyon brings one worlds away from the metropolitan area. The goal of the Plan is to identify, preserve and protect those elements of the Canyon that make it a desirable place to live and play, so future generations may continue to enjoy them.

How is that best accomplished? What steps are necessary to make this happen? How do you plan for the future with all of the changes occurring in the community? These questions are ones that Canyon residents and professional planners alike have been asking. The problem with many communities in the Salt Lake Valley, as well as all of America, is that most communities are so busy with trying to cope with and adapt to change, that they can never get ahead of it. Getting ahead of change allows tremendous control over how that change will occur. Once you establish the ability to affect the changes of the future, you must then know where to direct them. In order to manage and direct future growth and changes in the community, it is necessary to picture what you would like the Canyon to *become* in the future. In other words, establish a community vision.

Establishing a community vision is more of a process, than a one time action. The visioning process answers four basic questions about the community: 1)Where are we now (as a community)?, 2)Where are we going?, 3)Where do we *want* to be (in the future)?, and 4)How can we get there? These questions and the process of providing answers to them make up the visioning process. The concept of developing a community vision is not new, and has been implemented in other cities and towns. There are certain elements in visioning projects that are consistent throughout. They include building consensus among community members, establishing community values, and communicating the vision.

***Establishing a community vision is more of a process, than a one-time action. Visioning is the basis for building consensus among community members, establishing community values, and communicating the vision.***

Building consensus, and establishing community values are ongoing efforts, that began with a public open house held for Canyon residents, property owners, recreational users, and other interested parties. On February 26, 1997 people were invited to attend a meeting to openly discuss what they valued in the Canyon, and would like to see addressed in the General Plan. This forum allowed ideas to be expressed, concerns to be voiced, and have those thoughts put to beneficial use. This meeting enabled Planning staff to determine the Canyon's priorities concerning the issues raised. The issues and ideas raised at the public meeting, as well as through other contacts, were reviewed, recorded and prioritized with the help of the Emigration Advisory Committee. This

steering committee, comprised of a group of residents, property owners, community leaders, utility company representatives, and planning staff, volunteered their time and efforts to organize the issues and ideas raised through public comments into prioritized lists. This information was compared to the 1985 Emigration Canyon Master Plan, and its goals and policies, to evaluate what has happened in the Canyon since the Master Plan was completed.

A review of the growth and changes that have occurred in the Canyon since the 1985 Master Plan was completed, as well as how those changes occurred, provided the information to help answer the question of “Where are we now?” In addition, an analysis of the information collected regarding Canyon growth and development indicated current growth trends, which also helped answer “Where are we going?” Perhaps the more formidable question of all those needing to be answered deals with “Where do we want to be?” This question merits considerable thought. The Canyon will continue to change, as people move to or from the Canyon, buy or build homes, or use the Canyon in various recreational ways. Without direction, the patterns of development, or non-development, and Canyon use, will continue to cater to varying ideals, and the very face of the Canyon may be altered as growth trends develop unchecked. The future appearance and visual quality of the Canyon may or may not appeal to the general population without a coherent idea, or vision of what that appearance should be. Without a vision statement, those who make decisions that affect the future of the Canyon have no cumulative idea of where to direct their goals or base their decisions.

The importance of visual and environmental quality in the Canyon is evidenced by the responses of those involved in both the 1985 Master Plan and this updated General Plan. There is overwhelming sentiment to identify and protect the sense of being close to nature that brings people to the Canyon. Equally as important to the quality of life that Canyon residents enjoy is the protection and improvement of water quality and supply. Emigration Canyon stream is currently one of the worst streams in Salt Lake County, as far as stream quality measured in coliform levels. The residents and property owners are very informed, involved and concerned about the stream quality. Since the entire canyon, with the exception of the Emigration Place P.U.D., gets its water from wells, this is a

major factor to consider for the future well being of the Canyon. Through public involvement efforts, beginning with the public meeting, these and other issues were identified to form a consensus as to what the Canyon should become in the future. The formal expression of this idea is known as the vision statement. The vision statement for Emigration Canyon is as follows:

***The future of the Emigration Canyon Township Community will be:***

- A community with a population of approximately 2,000, nested in a beautiful natural setting.
- A visually pleasing, naturally pristine canyon.
- An historical venue.
- An environmentally aware community with distinctive open space and natural features, protected habitats, a trails system, and outdoor recreation.
- The location of a clean water supply, with sufficient natural recharge.
- A safe transportation route for both residents and recreational users.
- A desirable recreational site, where Canyon users exercise good judgment and respect concerning the fragile environment, to preserve its beauty.
- A home.....a good place for people to live and to lead happy, healthy, productive lives.

Once established, this vision statement represents the beginning, not the end, of the process of directing the future towards achieving the vision described above. The final question of “How do we get there?” begins with the communication of this vision to residents, property owners, policy and decision makers, and any and all interested people. Once this vision is known and communicated to all, collective efforts can be geared towards making the desired outcome a reality. By knowing the vision statement and constantly bearing it in mind, ideas, decisions, and developments will cater to the common goal and vision.

The Plan and its specific implementation recommendations are to be used as a tool when making land use decisions. The policies of the Plan are based upon and reflect the community vision, and are designed to support it such that if they are followed, that vision will be realized.

## *Environmental Quality and Preservation*

***The preservation, development and management of environmental and open space resources are essential to growth, diversity, and quality of life in the Emigration Canyon Community. The canyons and streams combine to make the area unique and attractive to residents. The preservation of these elements is crucial to the future vitality of the Community.***

The protection, conservation, development, and use of natural resources, including the quality of air, forest lands, soils, waterways and other water features, wildlife, minerals and other natural resources are all considered as part of the environmental element.

The Emigration Canyon Community is fortunate in that there is an abundance of wide-open and undeveloped lands present today. One effective method of environmental protection and management is the designation and preservation of open space. The preservation of open space serves a number of important public objectives, including,

- natural resource and habitat protection;
- managed utilization of natural resources;
- outdoor recreation;
- creation of buffers between developed areas and natural areas;
- protection of public health, safety and welfare;
- prevention of damage to natural areas by development.

The provision of adequate open space and protection of sensitive areas is closely related to the quality of life within the Community. While residents may derive recreational opportunities and aesthetic benefits from open space in the form of natural areas, trails, etc., many important environmental advantages are also related to this use of land. Open space designation is effective for the protection and management of critical environmental

areas such as wetlands, floodplains, significant ridgelines and hillsides, watersheds and wildlife habitats. This both minimizes the potential for destruction of sensitive land and protects the public from avoidable hazards. The Utah State Division of Water Quality classifies Emigration Canyon as an Anti-Degradation Area. Protection of sensitive lands in the Canyon is crucial, for the preservation of amenities for future generations, as well as the health and safety of existing Canyon residents, their water supply and visual amenities.

Environmental preservation and open space policy statements will be described individually.

### **Groundwater Supply and Quality**

The health of the community's residents and environment depends on an adequate and safe supply of water. Unless the Canyon installs and connects to a canyon-wide water system, the existing community and new development will continue to receive water

services from the Emigration Improvement District. The absence of a sewer system requires that all existing and future development use a septic system. The continued reliance on septic systems may seriously impede the long-term preservation of ground water quality. Emigration Canyon residents presently rely on groundwater supplies drawn from individual wells and must dispose of waste water through an individual septic system, with the exception of the Emigration Place P.U.D., which gets its water from Salt Lake City. Land

***As new development occurs, the supply and quality of groundwater should be monitored to ensure protection.***

development affects both the quantity and quality of the groundwater. Because of this link, the impacts of existing and future development on this sensitive resource should be studied and managed effectively.

The presence of wildlife in the Canyon will also continue to affect water quality. The use of watershed areas as breeding, feeding and nesting grounds for wildlife does impact water quality. The ability for wildlife to use stream channels for drinking water, a food source in which to find edible plant life, and as a travel corridor, all contribute to the impact of wildlife on streams.

All of Emigration Canyon has been designated an Anti-Degradation Area by the Utah State Water Quality Division. This designation indicates the need for water quality preservation efforts. Most of these efforts will come in the form of enforcement of best management practices, and through regulation and monitoring by the Salt Lake City-County Health Department and site plan review by the Salt Lake County Development Services Division.

Developments in the Canyon are required to submit an erosion control plan for all disturbed areas in accordance with the Grading Plan Submittal Requirements of the Foothills and Canyons Overlay Zone. These plans must also comply with Title 42 of the Utah State Code and §402(p) of the Clean Water Act.

The state requires developments over 5 acres to obtain a storm water discharge permit and submit an erosion control plan in accordance with Section R-317-8, Utah Pollutant Discharge Elimination System (UPDES), of the Utah Administrative Code.

### **Visual Resources**

The visual resources of a community combine to create the amenities that attract residents and visitors. The identification and protection of these resources are necessary to preserve the community's environment and integrity.

### **Wildlife**

The presence of wildlife is a unique community resource. Protection and management of wildlife resources is important in maintaining the

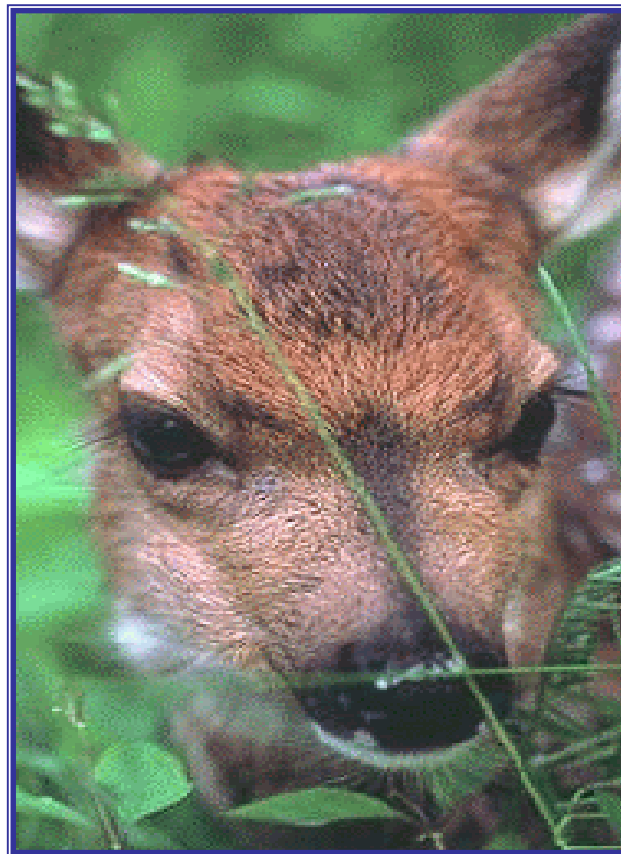
quality of life people have come to expect in the Emigration Canyon Community. Wildlife is a unique resource and one of the factors attracting residents to the area. Wildlife and available habitat should be kept in balance and managed to prevent overpopulation, disease and other problems. This should be done through consultation with the State Division of Wildlife Resources. Critical wildlife habitats are shown on the map on page 37.

Wildlife needs should be considered in land use decisions. While some species of wildlife can adapt to human encroachment to a certain extent, careful planning is needed to ensure

that important wildlife habitats are not destroyed and that wildlife-human conflicts are minimized.

Mule Deer, Elk, Moose and Beaver are common sights. The ability to observe wildlife at close range is one of the factors that attract people to this area.

*The presence of wildlife is a unique community resource.*



*Emigration Canyon contains many fawning areas for wildlife.*

Human encroachment on wildlife habitat through development and increased recreation use is an important consideration in the planning process.

Problems for wildlife in developed and developing areas usually comes under several categories. First and foremost, is the loss of critical habitats needed for nesting, calving, wintering, and breeding. Second is the loss of historic movement corridors. Third is the direct loss of animal population that results from human interference, such as road kill and other man/animal accidents.



*The presence of wildlife is a unique community resource.*

In the Emigration Canyon area the needs of most wildlife species can be met by protecting several habitat types and prime habitat areas. The size of residential parcels is very important, as is the value of strategically located blocks of open land in public or private ownership. In addition, a network of public and private open space and natural trails should be developed to preserve wildlife habitats and provide areas where the public can view wildlife without disturbing these important habitats.

It is easy to identify valuable habitat for large species like Mule Deer and Moose, which are seen on a regular basis. It is more difficult to delineate which land, for example, is important for nesting birds and waterfowl that may use a different nesting site from year to year but is always found in the same general type of habitat.

The needs of other wildlife species can be met by ensuring that habitats typical of the Canyon

environment are protected. Especially important habitat types within the study area include meadows and riparian areas, mountain shrubland, particularly south facing shrublands, along with adequate forested acreages. Meadow habitats provide food supplies for a variety of species, such as Mule Deer, Elk, Moose, etc. Natural riparian areas are important because they provide nesting and feeding habitat for a large variety of species. As development continues to occur in these areas, this sensitive habitat rapidly disappears.

The Utah State Division of Wildlife Resources has provided data on critical wildlife habitats in the Wasatch Canyons that include the Emigration Canyon study area. Wildlife habitats for mammals are generally based on seasonal climate, range conditions for browse (forage) production, and areas suitable for protecting the newly born of the various species. Habitat for specific bird species is constrained mostly by the availability of nesting areas. The following habitats are designated critical wildlife habitats.

- Habitat of threatened or endangered species,
- Riparian habitat,
- Wetlands,
- Wildlife movement corridors,

A Wildlife Data map delineates the following habitats that must be considered in the planning process for the Emigration Canyon Township General Plan. The Critical Wildlife Habitat Map can be seen in Figure 4, page 33.

Mule Deer

Critical Winter Range Areas  
High Value Yearlong Use Areas

Elk

High Value Yearlong Use Areas

Cougar

High Value Yearlong Use Areas

Black Bear

High Value Yearlong Use Areas

## **Vegetation**

The many varieties of vegetation in Emigration Canyon contribute to its environment and quality of life. Vegetation distribution in the Wasatch Canyons follows belts or life zones, which correlate, to slope, elevation and soil types. The distribution of distinct vegetation belts are discussed schematically rather than specifically due to the lack of comprehensive information. Range and woodland site data is broken down into dominant species for overstory and understory including grasses, sedges, forbs, and shrubs that are the potential native vegetation for given soil types.

The vegetation distributions in the Emigration Canyon study area are described below.

- The foothill communities located at the lower part of the Canyon are dominantly Scrub Oak (*Quercus gambelini*) and Mountain Mahogany (*Cecocarpus ledifolius*). Scrub Oak is the most extensive plant community in the Canyon environment. It begins in the lower foothills at about 5000 feet and covers most of the areas up to about 7,500 feet. On south facing slopes, Scrub Oak extends much higher nearly reaching the timberline in some areas.
- Mountain Mahogany is normally found in south facing slopes where the soil is extremely rocky. Mountain Mahogany is not as extensive as scrub oak, but it does form some definite communities in some areas, usually between 6,000 and 8,000 feet.
- The Canyon streamside communities are dominated by Maple (*Acer glabrum*), Chokecherry (*Prunus melanocarpa*), Birch (*Betula fontinalis*), Alder (*Alnus tenuifolia*), and Cottonwood (*Populus Spp.*) The Maple - Chokecherry Community, especially the Maple forest, is found near the narrow Canyon mouth from 5,000 to 7,000 feet. The Birch - Alder - Cottonwood community represents the most prevalent of streamside trees beginning at about 6,000 feet and extending up to 9,000 feet in elevation. Alder is especially adaptable to the higher elevations. Many varieties of deciduous shrubs are also found in this community.
- The lower montane forests consist primarily of the Aspen (*Populus tremuloides*), White Fir (*Abies concolor*), and Spruce (*Picea pungens*). Aspen form



*The many varieties of vegetation in Emigration Canyon contribute to its environment and quality of life.*

a very extensive sub-climax community from about 7,000 to 10,000 feet. Aspens, being unable to grow in their own shade, are usually replaced by conifers. They are not confined to the lower montane region, but often constitute a sub-climax community in the upper montane forest as well.

- The White Fir and Blue Spruce are the dominant trees of the lower coniferous forests. They form the climax vegetation in the same areas as the lower Aspen forests. Douglas Fir is also abundant in both upper and lower montane coniferous forests.
- The upper montane forests consist primarily of the Englemann Spruce (*Picea Englemanni*), Alpine Fir (*Abies Lasiocarpa*) community. This community extends from about 9,000 feet to the timberline. This is the only area where the climatic vegetation and the streamside vegetation are not markedly different.
- The alpine tundra community occurs above the timberline and is characterized by low shrubs and forbs. Some isolated areas above the timberline in

the upper Pinecrest Canyon are solid rock, consequently limiting the extent of this community.

## Climatic Data

Utah's climate is determined by its distance from the equator, its elevation above sea level, the location of the state with respect to the average air flow paths from principal moisture sources of the area, namely, the Pacific Ocean and the Gulf of Mexico, and the mountain ranges in the western United States, particularly the Sierra Nevada, Cascades and Rocky Mountains. As moist air is forced to rise over these mountains, a large portion of the original moisture falls as precipitation. Thus the prevailing westerly air currents reaching Utah are dry, resulting in light precipitation over most of the state.

The Great Salt Lake has a modifying effect on Wasatch storms, increasing precipitation intensity. Summer precipitation is usually in the form of thunderstorms. These typically build up during the afternoon and dissipate after dark. Annual precipitation increases about two inches for every 1000-foot increase in elevation.

As is characteristic of mountain slopes with average temperatures near or below freezing, the principal winter precipitation falls as snow. On the average, a foot or more of snow can be found on the mountain slopes by the middle of November and this snow cover usually remains until the middle of May. On the average, only 10 days per month record 0.10 inches of precipitation or more. However, 24-hour snowfalls of two feet or more are common and have been observed during most of the winter and spring months. Snowfalls at locations along the Wasatch Front Range have reported the heaviest accumulations by observing stations in the state.

Three distinct climatic zones are recognized in the Emigration Canyon study area. These zones have been classified by the U.S.D.A. Soil Conservation Service based on differences in the average annual temperature, amount of moisture received, and the length of the growing season. The climatic zones include: 1) Upland Climatic Zone, 2) Mountain Climatic Zone, and 3) High Mountain Climatic Zone.

## Air, Odor and Noise

Air, odor and noise are elements of the environment that contribute to the quality of community life. The quality of air is an important and cherished element of the environment. Proper planning and adherence to the established federal, state and county standards and regulations, increased ride sharing when possible, variable work schedules, and improved control of dust pollution are measures which should be encouraged County wide. Quietness is a component of privacy and a part of the character of this Canyon community. This resource should be protected from intrusions of unacceptable noise levels from automobile traffic or other potentially damaging land uses.

### Goals

#### General

Protect, maintain and improve the environmental quality of the Canyon for future generations.

#### Groundwater Supply and Quality

Protect the community's groundwater supply from significant depletion or hazardous contamination.

#### Visual Resources

Development in the Emigration Canyon Community should complement the area's visual resources.

#### Wildlife

Enhance, maintain, and manage a balanced wildlife habitat to ensure the continued biological and aesthetic value of this resource.

#### Air, Odor, and Noise

Development in the Canyon Community should not result in degradation of these elements.



## **Objectives**

### General

Ensure that future development practices and trends recognize, protect, and sustain the Canyon environmental quality.

### Groundwater Supply and Quality

1. Balance the availability of water and its use to ensure that water resources are not depleted.
2. Maintain and improve water quality as development occurs.
3. Residential development activities should be non-polluting, and ensure that groundwater quality is not affected.

### Visual Resources

1. Preserve and maintain the significant vistas and landscapes that have special visual qualities and are seen frequently by many people.
2. Preserve the quality landscapes from unnecessary visual disruption by ensuring that all development makes maximum use of natural screening of the terrain.
3. Maintain the important view corridors and open areas in the Emigration Canyon Community through sensitive site and building design.

4. Protect identified ridge lines from incompatible development by compliance with the ridge line protection policy outlined in the Slope Protection Standards of the Foothills and Canyons Overlay Zone.

### Wildlife

1. Protect critical habitats needed for nesting, calving, wintering and breeding.
2. Protect historic wildlife movement corridors.
3. Minimize human interference into critical wildlife habitat areas.
4. Protect, maintain, and where possible enhance wildlife access to water features and riparian habitats.

### Air, Odor, and Noise

1. Protect the health of people from detrimental effects of vehicular, and home heating emissions.
2. Limit airborne particulates by mitigating man-made disturbances.
3. Maintain septic systems to prevent offensive odors by enforcement of current Health Department regulations.
4. Minimize noise and protect privately owned areas valued for their quietness.

***SEE WILDLIFE MAP***

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## *Transportation*

***The transportation and circulation system includes the general location, purpose and function of existing and proposed arterial and collector streets, and any other modes of travel that are appropriate, all correlated with the future land use projected for the Emigration Canyon Community.***

The mobility needs of Emigration Canyon Community residents and future residents must be met by providing a safe transportation system. The transportation system should accommodate automobiles, pedestrians, bicycling, and other recreational traffic. Together, the system should effectively serve the present and anticipated population while being sensitive to the natural and built environments.

### **Transportation and Circulation Issues**

In order to facilitate the desired transportation system, several issues have been identified and considered in creating its general form.

#### *The Built Environment*

In general, any transportation system is strongly affected by the immediate environment in which it occurs, and conversely, a community form is strongly affected by the existing transportation system. Transportation planning should ensure that land use and the road systems are supportive to each other.

#### *Existing Conditions*

Emigration Canyon Road is currently in good physical condition, however, it does lack adequate shoulders, has short passing zones and lacks room for pedestrians and bicyclists. The guardrails are also deteriorating. The Canyon road has a 66-foot right of way, which was established in the 1930's. Two twelve-foot lanes exist with the narrowest

section currently having 21 feet of asphalt. Efforts to widen the road to include 4-foot bicycle & jogging lanes are currently underway. According to the Salt Lake County Transportation Engineer, Emigration Canyon Road is currently operating at a Level of Service "C."

There are in all, 6 "Levels of Service," ranging from A to F, which have been standardized by the Transportation Research Board. Level of Service (LOS) is a qualitative measure describing operating conditions within a traffic stream and their perception by motorists and/or pedestrians. A Level of Service definition generally describes these conditions in terms of factors such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

The analysis methodologies utilized are from the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 1985, (1985 HCM). The 1985 HCM contains detailed procedures for the analysis of a variety of facility types. For these facility types, Levels of service are generally defined as follows:

- LOS A represents free flow conditions. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS B is in the range of stable flow, but the presence of others in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected.

***Transportation planning should ensure that land use and the road systems are supportive to each other.***

- LOS C marks the beginning of a range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is affected by the presence of others in the traffic stream.
- LOS D represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted.
- LOS E represents operating conditions at or near capacity level. Operations at this level can be unstable, because increases in flow, a change in traffic composition, or a change in geometric conditions, can cause flow breakdown.
- LOS F is used to define forced or breakdown flow. This condition exists where the demand volume exceeds the facility’s capacity.

Many Canyon roads were approved prior to the current standard. Horizontal and vertical curves were not addressed, a 12% maximum road grade was allowed, and the standard roadway width was different than what would be approved today.

A typical single-family dwelling produces 10 vehicle trips per day. This number is often used to determine the capacity of the roadway.

In 1995, Fehr & Peers conducted a transportation study for Salt Lake County of Emigration Canyon Road. The Average Daily Traffic (ADT) reported in the study is shown in the following table:

Location	ADT (1995)
Pioneer Monument	4800
Above Camp Kostopulos	3400
Above Pinecrest Cutoff	900

Bicycle traffic (seasonal, peak) was determined to be 50 bicycles per hour, according to the Emigration Canyon Transportation Study done by Fehr & Peers.

In 1996, the Utah Department of Transportation also conducted a volume study with the following results:

Location	ADT (1996)
S.L. City Limits to Pinecrest Cutoff	5900
Pinecrest Cutoff to Highway 65	1895
I-80 to Emigration Canyon Road	1130

Traffic in Emigration Canyon should be based on an environmental capacity, such as determined by the Fehr & Peers study. Environmental capacity is based on the “quality of life.” Factors that affect the determination of environmental capacity include vehicle speed, snow/rain, line of sight (visibility), on-street parking, noise, travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Based on environmental capacity, the study has identified Emigration Canyon Road to be currently operating at Level of Service “E.”

#### Public Transportation Facilities

At the present time there is no bus service provided to the Emigration Canyon Community by Utah Transit Authority.

Public transportation should be encouraged as a viable alternative to private vehicle travel. It can reduce the number of vehicles using the roads and, in effect, extend the capacity of the roads for a longer period of time, as well as reduce the amount of air pollution.

#### **Transportation Elements**

##### Safety

The transportation system must meet the required safety standards for automobiles, bicyclists and pedestrians, and by its design, encourage and educate users to follow safe travel behavior. Parking restrictions along the Canyon road may be implemented if the situation becomes unsafe. Annotated warning signs may become necessary to alert motorists of unsafe conditions.

##### The Residential/ Canyon Environment

The quality of life in the Emigration Canyon Community is associated with its natural and built environments. A properly designed and managed transportation system can increase the opportunities

for people to utilize these resources while also supporting the viability of the area. At the same time, protection of neighborhoods and mitigation of transportation-related noise will reduce negative effects of the roadway system.

The Emigration community is a canyon community and the roadway standards implemented in this area will reflect this character. This includes determining the “Environmental Capacity” of the roadway in the area. As stated earlier, environmental capacity is the level of traffic where an observer on the side of the roadway feels the capacity is at a maximum.

Roadway Categories,  
Classifications & Maintenance

Emigration Canyon Road has been designated by the Utah Department of Transportation as a major collector road. Major Collector roads should: 1) Provide to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, important mining and agricultural areas, etc.; 2) link these places with nearby larger towns and cities, or with routes of higher classification; and 3) serve the more important intracounty travel corridors. Salt Lake County Code, Chapter 14.28 identifies the Canyon roads for which the county has maintenance responsibility and classifies the roads for the level of maintenance to be performed.

**Access**

Emigration Canyon has a history of fire and flooding. The roadway network throughout the Canyon should, where appropriate, provide multiple accesses for evacuation and emergency services. Many roads and accesses throughout the Canyon were approved prior to the adoption of the standards of today. Additional access for subdivisions may be necessary. The benefits of multiple accesses include safer roadways due to modifications and the application of AASHTO (American Association of State Highway and Transportation Organizations) standards, emergency vehicular access, and a distribution of traffic loads. The County Engineering Division is developing standard criteria

for improving access within Emigration Canyon. The criteria should be completed by the end of 1999.

**Access Management**

Due to the grade and alignment of Emigration Canyon Road, access management is required. Access management limits the number of driveways and roadways intersecting the Canyon road. New development is encouraged to minimize the number of access points onto the Canyon road. Applicants requesting permitted or conditional use permits will be required to use all means available to reduce the number of accesses along the roadway and prevent backing onto the roadway. By reducing the number of accesses, the number of conflict points is reduced, thereby creating smoother flowing traffic and increasing the overall safety along the roadway. It is recommended that existing roads which intersect Emigration Canyon Road be examined for potential turn lane additions. Salt Lake County should begin planning the construction of left turn lanes for transition in and out of new developments, as well as continuous Two Way Left Turn Lanes (TWLTL) in those areas with high residential access to Emigration Canyon Road.

Clear view and sight distance along the Canyon are also issues, which need to be addressed at the time of development.

**Mobility Through the Canyon**

Access to and from Morgan and Summit Counties contributes 1,890 vehicles per day between the Pinecrest turnoff and U-65. The ability to provide mobility to other destinations outside the Canyon is as important as providing circulation throughout the Canyon area. Access to U-65 provides a secondary access for Canyon residents to East Canyon, Little Dell, Parleys Canyon and I-80.

**Upgrading Roadways**

Private roadways had to meet the standards at the time they were approved. Over time, these standards have changed to reflect current trends, innovations and technological advancements. The result is that these standards yield increasingly safer roadways as the roadway capacity increases.

Many roads have been dedicated to the County when platted with a subdivision. These roads are not maintained by the County and will not formally be accepted by the County until such time that all current roadway standards are met.

In order to petition the County to assume responsibility for road maintenance and upkeep for private roads, the roadway must meet the current County standards. These standards include, but are not limited to vertical curves, roadway grade, and roadway width. The means by which to bring a road into compliance with County standards could be the creation of a special service district.

### **Cost Effectiveness and Funding**

Salt Lake County financial resources must be managed so that the most benefit is achieved with the fewest dollars. The County needs creative mechanisms for accomplishing its transportation goals. Long and short term financing mechanisms, such as the competitive bidding process for maintenance projects, public-private partnerships, such as agreements between Salt Lake County and development companies, as well as the use of Class-B road funds, will increase the effectiveness of each transportation dollar.

### **Future Modes of Transportation**

Emigration Canyon Road is not only being utilized as a commuter road, but also a recreational road. Bicycle traffic makes up 12.5% of all traffic along the roadway. Salt Lake County is currently widening the Canyon road to provide striped bicycle lanes. Widening shoulders and striping lanes provides a safer situation for bicyclists, motorists, walkers and joggers. Parking locations for use of off-road trail systems by bicyclists and pedestrians will reduce the amount of parked vehicles along the Canyon road.

### **Goals**

#### General

1. Provide a safe transportation system that will meet the needs of the Emigration Canyon Community residents, while minimizing associated impacts on the environment, air quality and adjacent development.

2. Ensure that Emigration Canyon Road is not overburdened by basing calculations and decisions regarding the use of the road on its environmental capacity, such as determined by the Fehr & Peers report or similar study.

#### New Roads

1. Ensure that all new public and private roads are built to County Standards.
2. Apply access management practices to the development of new roads.
3. Provide lanes on new roads to accommodate bicycle and jogging use.
4. Ensure that new roads include trail-head parking where possible.

#### Upgrading Roadways

1. Ensure the roadway system is not detrimental to public safety and welfare.

### **Objectives**

#### General

1. Base calculations and decisions regarding the use of Emigration Canyon Road on its environmental capacity, such as determined by the Fehr & Peers report or similar study.
2. Maintain existing public roads in the area to county Canyon standards, where appropriate.
3. Maintain existing and future private roads to county Canyon standards, where appropriate.
4. Actively promote public involvement in the planning stages of all roadway improvements and expansions.
5. Salt Lake County should complete a financial analysis to determine if additional road monies are required to augment federal, state and county road funds. If such a program is needed, it should include consideration of impact fees assessed to new development, creation of a special improvement district, or property taxes to spread the costs of improvements equitably among existing and future users.

6. Conduct a study by Salt Lake County to determine which rights-of-way in platted subdivisions could be vacated and which may be needed for access or trails.
7. Indicate where roads are actually built in replatted subdivisions.

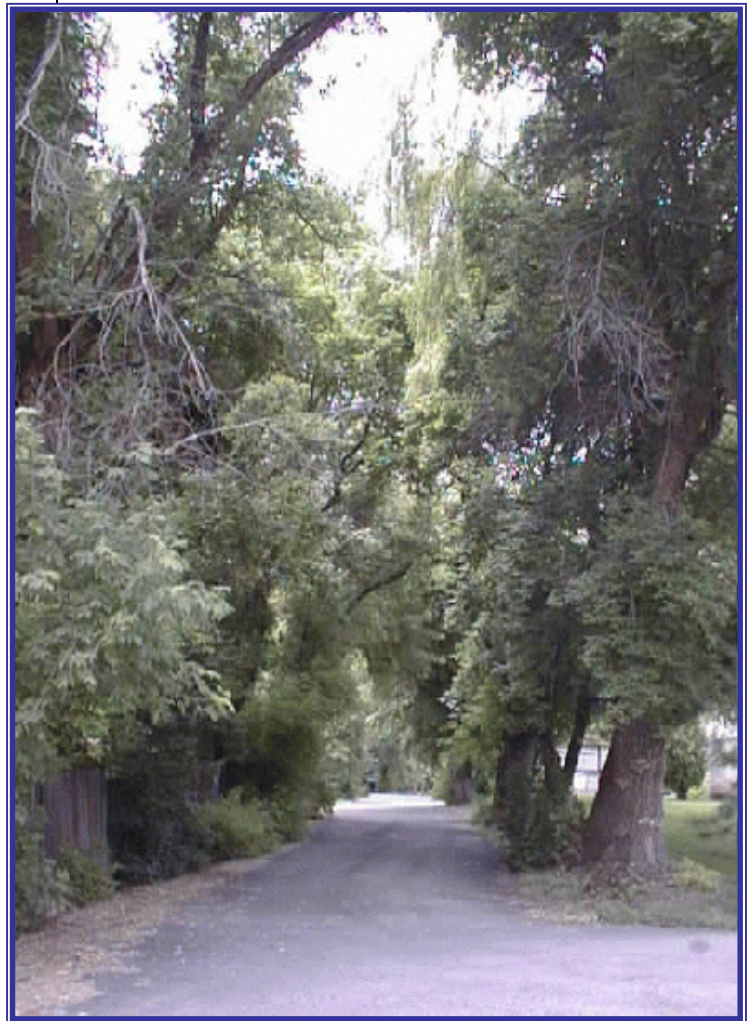
New Roads

1. Balance the need, extent and public funding of the transportation system with new development.

Upgrading Roadways

1. Salt Lake should acquire the necessary right-of-way on roads identified for improvements and county maintenance.

2. Follow the improvement schedule identified in the Salt Lake County Five-Year Roadway Plan to maximize the level of service on arterial and collector roads within the confines of available county, state and federal resources.
3. Utilize the available federal aid programs to make the proposed road improvements.



*Typical Private Road in Emigration Canyon.*



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## *Open Space and Recreation*

***The open and natural character of the Canyon is created through public and private undeveloped land. Open spaces and the recreational trails that occur in them are what attract Canyon residents to the area.***

Public and private undeveloped land is essential to maintaining the unique canyon setting. Undeveloped lands are comprised of public lands in different ownership and control, as well as private lands. A portion of this undeveloped land is privately owned and could be developed. The maintenance of the areas' character depends on having key open spaces between developments. Key open spaces can be preserved through compliance with the Foothills and Canyons Overlay Zone, as well as the Foothills and Canyons Site Development and Design Standards.

Throughout this section and the entire Plan, the terms open space and open lands are used in different ways. Open space is land owned and managed by a public or quasi-public agency, such as the Salt Lake County Parks and Recreation Division, the U.S. Forest Service, Salt Lake City, or public utility companies. Public open space lands generally have a more liberal public access policy, and offer a wide range of recreational opportunities. Open lands may be held privately by individuals or organizations. Public access to private open space is usually restricted.

### **Open Space**

Securing the land necessary to keep the "open feeling" characteristic of the Emigration Canyon Community will require increased coordination among public agencies, property owners, and private citizens. Some specific benefits other than enhancing the quality of life, include:

- keeping a significant amount of natural open space;
  - protecting important wildlife habitats, and movement corridors;
  - dispersing recreational opportunities throughout the area;
  - connecting the trails and recreational areas with planned linear pathways and open space corridors;
  - protecting view corridors and visual amenities;
  - reducing the threat of danger to life and property by avoiding development in natural hazard areas;
  - utilizing clustered development techniques to minimize impacts from typical subdivision design.
- minimizing the risk of source pollution by avoiding infringement in tributary areas.

***Securing the land necessary to keep the "open feeling" characteristic of the Emigration Canyon Community will require increased coordination among public agencies, property owners, and private citizens.***

Implementation of programs for the preservation of open space in Emigration Canyon will be the responsibility of the residents of the Canyon.

This Plan encourages community residents and property owners interested in open space preservation to educate themselves about existing preservation groups and programs. Salt Lake County will not be responsible for holding or maintaining open lands in the Canyon. The primary role of the County regarding open space is to create and maintain public parks, which do not exist in the Canyon. It is unlikely that a park will be established, due to the large amount of publicly

owned land. Any park considered for future construction would be 1-2 acres only.

Residents and property owners must initiate contact between potential lands for preservation and the private land trusts or groups.

### **Recreational Uses**

Canyon residents have access to parks near the mouth of the Canyon. Facilities include the Pioneer Trails State Park, which is a regional park, the Hogle Zoo, and Bonneville Golf Course.

The Emigration Canyon Community has no parks, public open space, or formal recreation facilities within the Community boundary. Based on the Salt Lake County Parks and Recreation Master Plan standards, the community does not meet the criteria for county appropriated parks and facilities.

Considering the Canyon's current growth trend, a neighborhood park should be considered in the future.

### **Trails**

For the most part, a trail is a narrow corridor of open space designated for public access and use. An organized trail system is an asset that can contribute to the economic vitality of a community, provide resource protection, nature education, and close to home recreation.

Many of the trails in the Canyon cross U.S. Forest Service or Salt Lake City property. Both the U.S. Forest Service and Salt Lake City currently restrict the uses on their land to non-motorized uses only.

#### Regional Trails

For a regional trails system to function, it should be enjoyable to use, link communities, recreation areas and open spaces together, and provide a transportation route for pedestrians. It should create and serve as the "backbone" of a more complex system of local trails. The regional trails may be maintained by federal, state, county, or local agencies, a local trails coalition or utility companies.

#### Local Trails

Emigration Canyon has a number of trails being used currently. Many of the Canyon's trail users can readily identify trails that interconnect to provide a system for recreational use. The realization of a local system of trails depends on land use decisions being made in this Plan. Local and regional trails must be viewed as part of our whole infrastructure and be included along highways, utility and sewer lines, and other public facilities as a necessary part of community life. Local trails should be considered along all water-base resources and connect people with community resources.

### **Trails Access Plan**

#### Purpose

The purpose of the Salt Lake County Trail Access Plan is to provide for the preservation and acquisition of legal public access to public lands along the eastern foothills and canyons of Salt Lake County.

This Plan is to be used as an information tool and guide to inform the public, property owners, developers, the government, and decision makers about the need for trail access.

The intention of this Plan is to help provide trail access easements to satisfy future public demand. As a result, all access points should be sought for acquisition. Priority should be given to critical access points, but as opportunities arise at other access points, access should be acquired.

Access points(or trailheads) are places where the public first accesses a trail. Typically, trailheads are nothing more than where a trail begins or where access is provided. An improved trail is one that includes information signs, parking, trash receptacles and possibly restrooms. In the study area, trails are generally unimproved. The trailheads referred to in this Plan are to be developed or improved based on available funding and input from the U.S. Forest Service and the community. If only minimal or neighborhood use occurs then no parking or facilities will be provided. Increased use should

***For the most part, a trail is a narrow corridor of open space designated for public access and use.***

be managed to reduce conflict by providing ample facilities (i.e. parking area, gates, trash cans, etc.).

Emigration Canyon is enriched with an abundance of public land. Every year people use its lands for sightseeing, hiking, biking, camping, climbing, and many other activities. Although many opportunities exist for the general public to use these lands, more and more of these opportunities are restricted by rapid population growth. Moreover, private property ownership along with increased development is restricting access to these public lands. One of the biggest problems for today's land managers and government agencies is maintaining legal public access to these public lands.

The Trails Access Plan inventories all existing trails in the foothills and canyons of the Wasatch Front in Salt Lake County. Included in the Plan are maps showing and categorizing all the access points in the study area, written descriptions of all the access points, and general information about trail access planning.

The Trail Access Plan began with the formation of the Salt Lake County Trail Access Committee. The Committee included representatives from a variety of organizations including Salt Lake County, the United States Forest Service, Sandy City, Draper City, the Bonneville Shoreline Trail Committee, the Salt Lake Regional Trails Council, Utah Mountain Bike Association, the Wasatch Mountain Club, Citizens Committee to Save Our Canyons, and many other interested citizens.

The Committee identified all trails, dirt roads, and access points within the study area. Also identified were all access points where access has been lost or is in danger of being lost. From this information a map was generated.

After analysis by the Forest Service, each access point in the study area was classified into one of four categories by using the following criteria: Does the access point receive a lot of use? Does the trail go to a major destination? (i.e. lake, peak, etc.) Are there currently problems with legal access? If so, is the problem permanent or temporary? Are there conflicts, potential or existing, with the neighborhood?

The four access categories are: Existing, Needed, Potential, or Local. These are identified on the Trails Access Plan Map, Figure 5, page 51, and Appendix B, page 99. They are explained as follows:

**1. Existing Access:**

Access is secure. The public may use the access point legally. Access needs to be preserved into the future.

**2. Needed Access:**

Legal access does not exist, although the public is using the access point. Legal access needs to be acquired and preserved.

**3. Potential Access:**

Legal access does not exist. Usage, demand, and location need to be studied to determine if access needs to be acquired.

**4. Local Access:**

Legal access does not exist. The trail or dirt road is typically not well used. Present use, future demand, and location need to be evaluated before access is acquired.

Review Process

This is the most important part of acquiring access - it is when opportunities can be gained or lost.

To begin with, the developer or property owner should be made aware that a trail access will be studied and possibly required through his/her property. Private parcels, easements, or rights of way can be donated or granted by landowners to a government agency or land trust.

Development Services Division initiates the review process. Review of subdivisions and conditional uses are all performed by Development Services Division. They are responsible for notifying the proper agencies or individuals for review. The review process will differ for each trail acquisition, but there are usually a few key agencies that need to be involved. These agencies should include Parks and Recreation Division, Planning Division, the Forest Service, possibly the adjoining city, and the community council. In most cases a field trip to study the site and determine a final alignment should be done.

This Plan shows general alignment of the trails. This was done so the developer or property owner could choose the trail alignment that fit best into his/her development, although the trail should tie in at property lines.

During this review process key decisions need to be made concerning types of trail users, neighborhood compatibility, physical constraints, and other issues. The overall objective is to allow the public access to the National Forest and potentially to segments of the Bonneville Shoreline Trail, while at the same time preserving private property rights and keeping all the land uses compatible.

#### Interagency Communication

The review process relies heavily on effective interagency communication. Proper involvement and review by the proper agencies is crucial. The Forest Service, the Planning Division, Parks and Recreation Division, neighboring cities, and the community council should have input in making recommendations.

#### Typical Requirements

**Width** - The width of each access should be determined on a case-by-case basis. Typical trail widths are approximately 5 feet or less. The required width depends on the type and amount of use, physical constraints, etc.

**Limits on Use** - Limits on use can be assigned to individual trails when necessary. Types of limitations may include not allowing certain types of users, or limiting hours or days of use for certain users or all users. Reasons for limiting use may include safety, neighborhood compatibility, environmental impact, wilderness impact, as well as other justifiable reasons.

**Final Plat or Site Plan** - For access obtained through subdivisions a legal description of the right-of-way should continue to be shown directly on the final subdivision plat and recorded. For access obtained from the conditional use process, the legal description of the right-of-way should continue to be printed on the final site plan and the right-of-way recorded. For trails with no legal description, or if one has not yet been determined, the plat or site plan should contain a statement indicating the existence of a right-of-way, subject to a final alignment to be determined at the time of construction. A typical trail easement is 25 feet wide and may be wider on steep slopes or heavily vegetated areas.

#### Construction and Maintenance

First, it should be noted that most of the proposed access points do not require construction of trail or a trailhead. Most access points have existing trails associated with them. Each trail differs in the amount of use, and therefore, some are not well defined while others are very distinct.

Although there are trails connected to most access points, there will be circumstances after an access has been obtained, that a different route must be taken, and therefore, a new trail or section of trail constructed. In addition, increased trail usage may require improvements and maintenance depending on the circumstances.

One of the most difficult obstacles to overcome is obtaining funding to construct and maintain trails and trailheads. Typically the U.S. Forest Service is responsible for trail and trailhead construction and maintenance in the National Forest. However, many of the trails and trailheads identified in this Plan are not in the National Forest. As a result, different alternatives need to be implemented, as well as, alternatives for assisting the Forest Service. Some of these alternatives may include volunteer assistance.

#### Adopt-a-Trail

There is typically a lack of money for trail construction and maintenance. The Adopt-A-Trail program has been used successfully across the country to offset some of the costs. The program is similar to an Adopt-A-Highway program, where groups (companies, organizations, etc) volunteer their time to improve different trails. This may include actual construction, maintenance, and other needed efforts. Trail user groups such as hikers, bicyclists, birders, and skiers, as well as, neighborhood groups, and Scouting and church organizations are good candidates for the Adopt-A-Trail program.

In addition, neighborhood groups are sometimes willing to take care of a trail if it is in their local area. Some of the problems with the Adopt-A-Trail program though, are providing the proper training for trail construction, and finding the right equipment and materials. There are various organizations that can provide training for groups on the basics of trail construction and maintenance. One such organization is the Student Conservation

Association who can be contacted through the Forest Service. These organizations should be used as much as possible to spread the knowledge of trail construction throughout the county.

### Management and Enforcement

Management issues should be dealt with by either Salt Lake County or the municipalities the trail lies in, and in conjunction with the Forest Service.

Some of the trails and trailheads may have various regulations governing their use. Some of the regulations may include hours of use and limits on types of users. In addition, trespassing may become an issue of concern. Enforcement of these regulations is a challenge, but there are various methods and people to deal with this challenge.

The Forest Service and Salt Lake County Sheriff have the principal authority to deal with these issues, but they do not have the resources (manpower and time) to effectively cover all the trails within the county. These organizations should be used as much as possible and also be used to support other enforcement efforts. Some of these other efforts include using trail user groups, neighborhood groups, and individual trail users. Although these people or groups do not have legal authority, by just being present and able to witness any illegal activities they can be very effective in resolving problems.

## Issues

### Funding

One of the biggest hurdles for solving the trail access problem is finding the funding to pay for all the necessary costs. Land acquisition where needed is probably the most costly. Construction and maintenance of the actual trail and trailhead, and management are expensive. Some funding opportunities exist through the state and the federal government. The Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21) and the Land And Water Conservation Fund Act (LWCF) provide federal

funds and the Nonmotorized Trail and Riverway Enhancement Fund provides state funds. Normally, federal and state programs require a local match of funds. The TEA-21 fund requires an 80/20 match, and the LWCF Nonmotorized Trail, and Riverway Enhancement funds require a 50/50 match.

Projects must qualify for funding by submitting an application to the proper agency. Applications are reviewed each year. Public land trusts are another financial source that potentially can be tapped along with donation of funds by private individuals, organizations, or businesses. The typical construction cost, in rough terms, for a mile of mountain trail is \$20,000 to \$30,000 with some volunteer help.

### Compatibility With Neighborhood

One of the more important issues is compatibility with the neighborhood. Residents are typically concerned about how new development, including trails and trailheads, will affect their neighborhoods. Some of their concerns include traffic, noise, truancy, litter, trespassing, burglary and personal injury. Regular trail use generally eliminates criminal and undesirable behavior. With proper design guidelines, effective user regulations, and education these concerns can be eliminated or mitigated.

Proper location of trailheads is an important factor in determining neighborhood compatibility. When possible, trailheads should be located away from homes and in a manner to minimize traffic. In addition, trailheads should be designed to minimize impact on the neighborhood and be aesthetically pleasing. Sufficient parking, visual barriers, fencing, and nonintrusive lighting should be made part of the design. Furthermore, trails should be routed so as to have minimal impact on neighboring houses. When necessary, screening and/or fencing should be used as a buffer between the trail and adjacent homes.

Regulation of hours of use is another effective way to make a trail and trailhead compatible with the neighborhood. Typically hours can be limited to daytime hours only. If compatibility becomes a

***One of the biggest hurdles for solving the trail access problem is finding the funding to pay for all the necessary costs. Land acquisition where needed is probably the most costly.***

problem, locked gates can be used to close off trailheads at night when most problems occur.

#### Acquiring Access

There are a number of different methods for acquiring legal access to public lands. The specific situation at each access point will require using different methods.

#### Trails Ordinance

The easiest and least expensive tool that Salt Lake County has to acquire trail access is the trail dedication ordinance. This ordinance is utilized when a subdivision or project requiring a conditional use permit is proposed by a developer or property owner.

The trail route and easement is dedicated as a public trail at no cost to Salt Lake County. Although this is an easy method to acquire access, it relies on a development being proposed before a trail easement can be obtained.

#### Easements and Rights of Way

Many easements and rights-of-way along certain properties exist in the County. Rights-of-way and easements allow for access to a certain location or destination, which requires passing through part of another property. The most common of these are utility and fuel rights-of-way and easements, such as those granted to Utah Power Co. and Questar Gas. These could also serve as a tool for allowing access to trails.

The most likely way for an easement to be granted, especially in areas where trail access is requisite to using the trail, is the voluntary and consensual granting of easements and rights of way. This method is the most viable, legal, and equitable means of securing long-term access to trails.

#### Bonneville Shoreline Trail

The Bonneville Shoreline Trail is a unique opportunity to assist in providing access to public lands. The B.S.T. is a proposed trail that will run along the old Lake Bonneville shoreline at about an elevation of 5200 feet. At this elevation there is a distinct bench of the old shoreline, a level surface suitable for a trail. Sections of the trail have already

been constructed in Salt Lake City and other sections in the Salt Lake Valley are being planned.

Because the B.S.T. runs parallel to the foothills, the trail crosses many of the access points into the National Forest. This enables access points to be combined in some locations. This has the potential to lower costs and minimize impacts to neighborhoods. The trail also provides increased access to the foothills for fire fighters in the event of a wildfire.

#### Land Exchanges

At times government agencies are involved in land exchanges of public land for private land. These exchanges can be used to acquire legal public access through parcels that were once private. Lands that have the potential for beneficial public use, such as being designated as public open space, should be traded when private lands are available and owning agencies can reach a mutual agreement on the trade.

#### Purchasing

If funds are available, the option exists for government agencies and public or private land trusts to purchase private parcels or easements through private parcels in order to obtain legal access. Some funding opportunities exist through the state and the federal government, indicated under “Funding,” p.45.

#### Dedication by Public Use

If a trail has been continually used by the public for a period of at least ten years, it may be arguable that it could be dedicated to the public because of its historical use. While state statutes appear to support this legal concept, there is little or no Utah case law to support this method of acquiring access.

#### Donation

Private parcels, easements, or rights of way can be donated or granted by landowners to a government agency or land trust. This alternative would cost little but benefit government agencies and the public a great deal. Donation of lands often results in favorable income tax treatment for donors.

### Condemnation

As a last resort, the government can use its powers of Eminent Domain - the right of government to take private property for public use, with compensation. This method of acquiring access would be used in tandem with financial purchase and compensation methods and politically may be a difficult method to acquire trail access.

County staff has met with representatives from Utah Open Lands to discuss preservation options that may exist for Canyon landowners. Utah Open Lands operations are explained at the end of this section. Other land trusts exist which operate in a similar manner.

### Limited Liability Law

Chapter 14, Title 57 of the Utah Code entitled "Limitation of Landowner Liability - Public Recreation" addresses the issue of private property liability. "The purpose of this act is to encourage public and private owners of land to make land and water areas available to the public for recreational purposes by limiting their liability toward persons entering thereon for those purposes." An owner of land who permits without charge any person to use the land for any recreational purpose does not make any assurances that the premises are safe or does the landowner incur liability for any injury to persons who enter upon the land.

### **Goals**

#### Open Space

To protect the quality of life in the Canyon by preserving open lands for present and future generations.

#### Recreational Uses

Maintain the rural and open character of the Emigration Canyon Community as development occurs through a network of public and private open space, trail corridors, and facilities for active and passive recreation.

### Trails

Acquire sufficient legal access to public land for trail access to satisfy the present and future demands of the residents of the Emigration Canyon.

1. Salt Lake County should use the trails ordinance to its full potential.
2. All government agencies should take a proactive approach in acquiring public access to public lands securing public easements and rights-of-way.



*The Canyon has many open space areas.*

### **Objectives**

#### Open Space

1. Keep a significant amount of natural open space.
2. Encourage the community to pursue an aggressive land acquisition program to secure properties for future open space development.
3. Encourage the identification of valuable open space on private property.
4. Educate property owners regarding options for the preservation of open space.
5. Encourage individual or group action towards initiating open space preservation efforts.
6. Expand, develop and upgrade open space areas.



Recreational Uses

1. Identify and implement innovative funding mechanisms for property acquisition, development and maintenance of recreational facilities and programs.
2. Disperse recreational opportunities throughout the community.
3. Solicit Emigration Canyon Community residents' understanding and support for future parks and recreation programs.

Trails Access

1. Involve the public, including general citizens, trail user groups, and neighborhood groups in decisions involving trail planning.
  - a) Compile and maintain a list of all trail user groups, interested citizens, community councils, and representatives from all the involved government agencies.
  - b) Supply the list to all groups and agencies involved in trail planning upon request.
2. Set up a network of interagency communication including community citizens.
  - a) Request recommendations from all pertinent organizations.
3. Promote developers' and property owners' awareness of trail access needs early in the development process.
  - a) Ensure that Development Services Division has the proper and current information concerning trail access.
4. Reduce concerns of private property owners about allowing the public to use trails on their property.
  - a) Promote a better understanding of the Utah State Limitation of Landowner Liability Law to all property owners.
  - b) Educate and inform trail users to respect private property.
5. Develop trail systems in a manner compatible with neighborhood, community, and Forest Service guidelines.

- a) Follow the recommendations and standards as outlined in the Salt Lake County Regional Trails Plan, where applicable.
  - b) In concept, most of these trails including segments of the Bonneville Shoreline Trail are intended to be natural dirt trails used only for human powered traffic.
6. Obtain funding to acquire property for access and to construct and maintain trails and trailheads.
  7. Develop trail systems that provide ample and satisfying non-motorized recreational opportunities for a growing urban population.
    - a) Ensure trails offer a variety of recreational experiences to a variety of users.
    - b) Provide recreational opportunities for the disabled.



*A typical canyon trail.*

8. Develop trails that are sensitive to wildlife and wilderness areas.
  - a) When proposing a new trail that will have major impact on a natural area, recommendations should be sought from the Division of Wildlife Resources and the U.S. Forest Service.
9. Develop and maintain trails that protect and maintain water quality and/or watersheds.
10. Develop a trail system that provides a link with trails outside the unincorporated county.
  - a) Cooperation between jurisdictions and trail committees should occur to develop a functional trail system.
11. Develop trails that are functional and environmentally sensitive.
  - a) All mountain trails should be constructed according to U.S. Forest Service standards.
  - b) Educate groups or individuals on constructing or maintaining trail standards.
12. Develop trail systems and trailheads that respect the privacy of adjacent property owners.
  - a) When feasible, locate trails and trailheads away from homes.
  - b) When not feasible, use existing or new vegetation, fences, or other buffer between trails or trailheads and adjoining homes.
13. Develop trailheads that address issues of unauthorized users, hours of use, parking, privacy, vandalism, litter, and noise.
  - a) Adopt standards that ensure trailheads are designed to address these issues.
  - b) Trailheads should have sufficient parking, trash containers, signage, and limits to hours of use.
  - c) When necessary, trailheads should have lighting, gates, fencing, and landscaping buffers.
14. Ensure all trails and trailheads are maintained to reasonable standards.
  - a) Organize an Adopt-A-Trail program throughout the county to provide periodic maintenance of individual trails or trail systems.
    - b) Have government agencies, trail user groups, or individuals observe and report any maintenance problems to the group/agency responsible for the particular trail.
15. Enforce all trail regulations.
  - a) A program should be created involving the U.S. Forest Service, Salt Lake County Sheriff's Office, trail user groups, neighboring citizens, and interested individuals to monitor activity on trails.
16. Expand, develop and upgrade trail areas.
17. Educate the public about etiquette, liability, and the responsibility of trail users.

### Utah Open Lands

Utah Open Lands (UOL) is a non-profit organization formed in 1990 for the purpose of using voluntary means to protect the scenic, wildlife, historic and agricultural values of open land in Utah. Its function is intermediary, working to devise creative ways to preserve open space for landowners.

Utah Open Lands uses various means for dedicating lands into open space. The most successful means for dedicating lands into open space is by a conservation easement, which is a legally binding agreement between a landowner and Utah Open Lands for the purposes of protecting the special features of a property by restricting development. The land remains in private ownership, while UOL assures that the terms of the agreement are followed in perpetuity.

Another means of preserving open space is through the donation of lands. Lands may be donated because they are no longer in use, will not be passed on to heirs, are highly appreciated in value, or are a burden to maintain. Land may also be donated with a remainder interest and retaining a reserved life estate. This arrangement allows a property to be donated while the owner or any other named persons to continue to use and live on the property. When the owner/users die or release their life interests, the land trust gains full title and control of the property.

Yet another option is a bargain sale of the land, which enables the purchase of a property at a reduced rate, for certain benefits in return.

Utah Open lands is just one organization to promote and facilitate the preservation of open space. Those interested in learning more on the procedures and benefits of open space preservation should contact:

Utah Open Lands  
P.O. Box 680921  
Park City, UT 84068  
801-961-9955

***SEE TRAILS MAP***

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## *Natural Hazards*

***The Emigration Township contains a unique combination of geologic conditions and topography. Development should be limited to the areas presenting the lowest long-term risk to residents and property.***

The Emigration Township covers a unique combination of geologic conditions and topography. Development should be limited to the areas presenting the lowest long-term risk to residents and property. Areas of highest risk typically include one of the following factors: steep hillsides, adverse geology, problem soils, or stream considerations. Areas identified as either low or moderate hazard require review and appropriate site development and design guidelines.

Development-related geologic hazards should also be evaluated during application review. Such hazards might include disturbance of soil and rock creating slope stability problems, including erosion and changes in drainage patterns caused by road cuts, extension of utility lines, and other development disturbance. An overriding policy is the protection and enhancement of the natural environment.

Unfortunately, the adverse impacts of geologic and man-made hazards have already been demonstrated in areas of the Emigration Canyon Township. These potentially hazardous conditions continue to exist, and as development continues throughout the township, hazardous situations are more apt to develop. The Plan recognizes the importance of the natural environment and has incorporated the following goals, objectives and policies into each element of the Plan and into the regulations for each land use category and the total implementation structure for all ordinances.

### **Geologic Setting**

The Emigration Canyon Township is located along the western flank of the central Wasatch Mountain Range within the Middle Rocky Mountain physiographic province. The bedrock underlying the township has been folded into a northeast-southwest trending syncline (or a broad U-shape). Rocks within the Emigration Canyon Syncline range in age from

Pennsylvanian to Cretaceous. The northeastern portion of the syncline has been covered by the Tertiary-age Wasatch Formation.

Bedrock units found across the township have a range of physical properties and some can pose severe development constraints because of instability,

moisture sensitivity, shrink/swell potential, or poor percolation characteristics.

### **Topography and Slope Stability**

The Canyon is located in the Wasatch Mountains, an area of high relief. Elevations range from about 5,100 feet near the mouth of Canyon to 8,954 feet at the summit of Lookout Peak along the northern boundary of the township. Given the topography, slope stability hazards pose perhaps the greatest risk of the geologic hazards. Both landslides and debris flows have occurred in Emigration Canyon Township. Much of the township contains areas where slopes exceed 30 percent. The Foothills and Canyons Overlay Zone is restrictive of development on slopes greater than 30%. Health Department Regulations do not allow leach fields on

***The protection of environment, property, and life must be considered in the planning and development review process. All three factors need to be examined in selecting areas for development.***

slopes over 25%. Many residential lots in Emigration Canyon were platted in the early decades of the Century without regard to topography and unfortunately some of these lots have slopes too severe for safe development.

### **Soil-Related Hazards**

Soil characteristics are important factors in determining development potential and the limitations for a site. This is especially important in areas where septic systems and drainfields are present or proposed. Characteristics to be considered are slope, percolation rates, drainage patterns, depth to water table, texture, presence of shrinking or swelling clays, erosion potential, alkali content and bearing capacity. (Soil characteristics are listed in Appendix C, page 103.)

The Emigration Canyon Township area has several soil types. Figure 8, page 61, shows soils according to their development suitability. As shown, a substantial amount of the township is identified with "moderate" constraints for development. In areas where soils pose "moderate" constraints, development should occur only with careful planning and engineering.

The locations having "severe" soil constraints can be developed only with special engineering design to mitigate problems and make development feasible. In instances where soils prove to be impervious, no mitigation is possible. Impervious soils will not allow a leach field system. Soils with high erosion potential identified near the significant water features are also a major reason for the "severe" rating. Highly erodible soils are easily disturbed soils, having characteristics that can cause destruction of aquatic life and increase the risk of flooding.

### **Hydrology and Flooding**

Emigration Creek and its tributaries are the principal drainages carrying runoff through the Canyon. The area contains a number of locations along these streams that are considered subject to special stream considerations and setback requirements.

Floodways and the 100-year flood plain are defined by the Federal Emergency Management Agency. The report, "Flood Insurance Study, Salt Lake County, Utah, Unincorporated Areas," has been applied and adopted as part of the Salt Lake County Zoning Ordinance, Chapter 19.74 as a guide to development.

In most areas, the creeks have well defined channels that in the past have experienced some flooding. Sediment collecting in the stream channels has caused significant damage from flooding problems along adjacent properties. There are some smaller drainages that flow continuously and some intermittently throughout the year, with potential high flows during the spring run-off period. Hydrologic features are shown in Figure 9, page 63.

### **Wetlands**

Under the U.S. Clean Water Act of 1977, wetlands are defined as "those areas that are inundated by groundwater or surface water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for saturated soil conditions." The U.S. Army Corp of Engineers has been given the responsibility for wetlands management, study and protection.

Jurisdictional wetlands have been delineated along Emigration Creek and there may be isolated wetland areas along tributary drainages.

These wetlands, though small in size, are important in the urban fabric because they provide sanctuary for various forms of plant and animal life and ecological balance of an area. As development increases, further investigation of these areas in their natural state becomes more important. Development in wetland areas is sometimes undesirable because of increased construction costs and potential for flooding of basements. However, development is possible with proper site considerations and mitigation measures. Federal laws require no net loss of wetlands. No net loss of wetlands means that if a designated wetland is eliminated, another wetland site must be acquired and preserved to replace the site that is lost.

*Soil characteristics are important factors in determining what kind of development is appropriate for a site.*

## Seismic Hazards

Earthquake-related hazards pose a significant risk to all the residents of Salt Lake County. There is about a 20 percent chance of a large earthquake occurring sometime during the next 50 years along the Wasatch Front. Even more-frequently occurring moderate earthquakes can cause significant damage. Therefore, seismic hazards must be considered in all land use planning. Salt Lake County has adopted by ordinance, a Natural Hazards Area overlay zone. This information can be found in the Natural Hazards Ordinance, Chapter 19.75. No known active faults are in Emigration Canyon Township. Seismic hazards in the Emigration Canyon Township stem primarily from the seismic waves that are generated during large earthquakes.

### Ground Shaking

The Emigration Canyon Township is located near the center of the Intermountain Seismic Belt (ISB), a broad area of seismicity extending from near Las Vegas, Nevada north into Yellowstone National Park and Montana. Within the ISB there are many active faults, including the nearby Wasatch Fault. This very visible fault is capable of generating large-magnitude earthquakes. Earthquake seismic waves radiate outward in all directions from the epicenter, and damaging waves from large earthquakes are capable of traveling long distances. Strong ground motion from earthquakes poses risks to buildings, slopes and retaining structures.

The most effective method of dealing with the ground shaking hazard is to design buildings to withstand the expected ground accelerations. All construction must comply with current Uniform Building Code requirements.

### Soil Liquefaction

Soil liquefaction is a seismic hazard associated with the ground shaking that accompanies large earthquakes. Liquefaction occurs when loosely compacted fine-grained ground water saturated

sands and silts are strongly shaken. During liquefaction, sediment particles lose their grain-to-grain contacts and "float" in the groundwater. The liquefied sediments temporarily behave like quicksand. Earthquake induced liquefaction can result in ground failure and loss of soil bearing strength beneath a structure. This can lead to serious structural damage and loss of life should the structure collapse.

The area of the Emigration Canyon Township was not included in the liquefaction special study area map completed for the valley portion of Salt Lake County. However, given the nature of sediments found in the canyons the liquefaction potential in the Emigration Township is typically considered to be very low and no special considerations would be required for residential subdivisions. However, development of special occupancy structures would require that the liquefaction analysis be addressed.

### Surface Fault Rupture

Surface fault rupture presents a severe hazard to buildings or other structures (buried utility lines, roads, etc.) placed over active faults. A fault is considered active if it has ruptured the ground surface at least once in the past 10,000 years. The Salt Lake Segment of the Wasatch Fault is considered active, having ruptured the surface in several major earthquakes within the past 10,000 years.

The most effective method of dealing with the hazard from surface fault rupture is simple avoidance. Because fault rupture tends to reoccur along existing fault traces from past earthquakes, structures should be placed a safe distance from the nearest fault to prevent structural damage, possible injury or loss of life.

No active faults have been mapped within the Emigration Canyon Township. The nearest active fault is the Salt Lake segment of the Wasatch Fault, located about 2½ miles west of the mouth of Emigration Canyon.

***There is about a 20 percent chance of a large earthquake occurring sometime during the next 50 years along the Wasatch Front, and even more-frequently occurring moderate earthquakes can cause damage.***



## **Goals**

### General

1. Reduce the risk to life and property from the impacts of natural and development-related geologic hazards.
2. Minimize soil erosion from grading and excavation associated with land-use activities.
3. Reduce the risk to life and property from flooding.
4. Guide compatibility between development and site to better balance geologic hazards, aesthetics, and land use.
5. Ensure that development meets ordinance requirements (such as the Foothills and Canyons Overlay Zone).

## **Objectives**

### Geologic Setting

1. Fit development to the existing terrain, to prevent or reduce all adverse impacts in hazardous areas.
2. Ensure that land use activities do not increase the risk from geologic hazards, and ensure that grading and excavation disturbances associated with development do not accelerate erosion.

### Topography and Slope Stability

1. Protect life and property by prohibiting development on slopes greater than 30%.
2. Encourage slope stability analyses to be conducted as part of any development review process, including assessment of debris flow hazards, where relevant.

### Soil-Related Hazards

1. Restrict development where soil conditions might pose problems to foundations or could impact subsurface water quality.

### Hydrology and Flooding

1. Protect life and property from the increased risk of flooding through application of stream setbacks specified in the Foothills and Canyons Overlay Zone, FEMA flood zone requires and careful review of development along streams and at the mouths of drainages.

### Wetlands

1. Encourage the identification and protection of wetland areas within the Canyon by requiring an investigation of impacts prior to development near or surrounding water facilities.

### Seismic Hazards

1. Prevent loss of life and property associated with the seismic hazards in the region by designing buildings in compliance with current Uniform Building Code Seismic Zone 3 requirements.

***SEE BEDROCK MAP***

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***SEE SLOPE MAP***

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***SEE SOILS MAP***

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***SEE HYDROLOGY MAP***



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## *Land Use Policies*

***This rural, canyon area is characterized by expansive views of natural terrain, wildlife, and high levels of privacy. These features, plus the close proximity to metropolitan Salt Lake City, are reasons the Emigration Canyon Community is becoming a desirable choice for new residents. The natural environment should be respected and enhanced when development occurs.***

The land use policy recommendations in this section are intended to accommodate future housing needs in a way that is compatible with the unique rural and mountain environment. Balancing natural and man-made environments can be achieved when development is sensitive to existing natural resources and constraints. To achieve this balance, the residential requirements stress the relationship to the natural features of this environment, e.g., geology, topography and slope, potential flood hazards, wetlands, wildlife, significant vegetation, scenic views and ridge lines.

When development is proposed, characteristics of the site are identified and development impacts are evaluated. It is during the development review process that sensitive and hazardous areas are identified, the availability of essential services identified, etc.

Each of the sections in this Plan contains specific and more definitive recommendations, which should be applied during the land development review process.

The density recommendations for residential development should follow those outlined in the zoning ordinance, and should comply with other applicable issues contained in the Plan. These recommendations are based on and reflect a desire to maintain a canyon setting while allowing new development to occur in appropriate areas, preserve the diverse environmental resources, and to protect and enhance the quality of life for the entire area.

### **Zoning**

Zoning was originally introduced in the Canyon in 1951. As land use patterns began to develop, the Canyon underwent a major downzoning in 1987 to reflect the residential and rural character of the Canyon.

The Emigration Canyon Community General Plan is a comprehensive, long-range guide. By contrast the Salt Lake County Zoning Ordinance and accompanying maps are specific, immediate and limited primarily to the control of private land development.

Because it provides control over almost every aspect of development, the Zoning Ordinance is the single most important tool to carry out the Plan. The Ordinance provisions and requirements are designed to ensure high standards of land development without

unduly restricting private initiative or causing unnecessary costs to the developer or to the public.

Zoning regulations are enforced by the Salt Lake County Development Services Division. On site inspections are performed by Development Services officials to verify that development is in conformity with all requirements pertaining to the site. Application for variance and special exception to zoning regulations may be made to the Salt Lake County Board of Adjustment. Zoning Amendments are made by the Salt Lake County Commission after review and recommendation by the Planning Commission.

***Balancing natural and man-made environments can be achieved when development is sensitive to natural resources and constraints.***

The Salt Lake County Zoning Ordinance and its associated maps define and identify various zone classifications. Zone classifications define various land uses and maps indicate zone boundaries. Today, the predominant zoning classifications in the Canyon are FR-0.5, FR-1, FR-5, FR-20 and C-2/zc zones.

The FR zones were created to permit development of canyon areas for forestry, recreation and other uses (such as residential), to the extent such development is compatible with the protection of the natural and scenic resources of these areas for the continued benefit of future generations. The FR zones require a minimum lot area as indicated by the suffix number. For example, FR-0.5 requires a minimum lot area of ½ acre, FR-1 requires 1-acre minimum, FR-5 requires 5 acres, etc. Most of the higher density zones (FR-0.5 and FR-1) are found close to Emigration Canyon Road. Appropriately, the larger lot zones are located in the outlying areas or locations with steep slopes and related topographical and natural constraints not conducive to development.

The C-2/zc zone found in the Canyon allows for commercial development, but restricts uses through the application of “zoning conditions” to a limited range of land uses otherwise permitted in the C-2 zone. It is within these zoning conditions that the full extent of what can be done in that zone is set forth as determined by the Emigration Canyon Township Planning Commission.

The existing zoning in the Canyon is intended to better achieve a proper balance between the man-made and natural environments. Any area-wide rezoning that would occur in the future would reflect the need for further balancing those environments and may occur following significant changes in circumstance, such as with the installation of a canyon-wide water system. Rezoning applications for individual properties will continue to be subject to input and recommendations from the Community Council and County staff, and decisions from the Emigration Canyon Township Planning Commission and the Board of County Commissioners.

In some areas of the community the current zoning and subdivision platting is not in conformance with the Plan. Because the established planning policies will pertain to and allow consideration of new applications only, the recommendations of the Plan contained in the Implementation Section should be strictly followed

in order to bring existing properties and development into compliance with the policies of the Plan. An example of this would be the Groves Subdivision. The Plan recommends that this subdivision, which was platted in the early 1900's and originally intended to be sold as “tenting” lots, be re-platted to comply with current ordinances. The existing lots, many of which are only 25 feet wide, are too small to develop.

## **Residential Development**

### *Residential Holding Capacity*

A major issue for Canyon residents and property owners both in the 1985 and 1998 plans has been the establishment of a Residential Holding Capacity. Residential Holding Capacity simply defined means the amount of development (residential or other) likely to occur given the application of various constraints to development (i.e. slope, available water, soil conditions, access to the site, etc.). During the creation of the 1985 Master Plan, the defining factors, which were used to determine development in the Canyon, were road capacity and development suitability based on slope, access, and soil stability.

Today, there are new factors at the forefront of concerns for establishing a process for determining growth potential. Water has become the single most important issue for Canyon residents and property owners. The primary goal of the residents of the Canyon concerning water is to have a clean supply with adequate water for an uninterrupted flow for culinary use and fire protection purposes. This was determined at a public meeting during which residents, property owners, and Canyon users were given the opportunity to identify issues they would like to have addressed in the Plan.

The unique and fragile environment of Emigration Canyon makes determination of a holding capacity difficult at best. Whereas in most communities, holding capacity is greatly driven by density, the Canyon presents a unique set of criteria to consider.

There are several factors that should be considered in establishing a holding capacity in the Canyon. These include physical and environmental factors of privately owned land such as slope, hydrology, access and soil stability, along with consideration of existing roads, infrastructure

availability, community facilities, and existing land use pattern.

Factors used to determine a holding capacity include the following: Number of existing lots of record under the Lot Consolidation Provision of the Foothills and Canyons Overlay Zone, current zoning requirements for development, developable area under the Foothills and Canyons Overlay Zone, impact of traffic systems, provision of county services, etc.

The establishment of a Canyon holding capacity may also change considerably with the introduction of a canyon-wide water system. The development of a sewer system along Emigration Canyon Road would also affect the number of residences built. In the event that no canyon-wide water system is installed, the continued use of septic systems alone will adversely affect water quality and reduce the total development potential of the Canyon. It should therefore be understood that any holding capacity that is established is intended for a general reference and applicable only under current conditions in the Canyon.

Issues to be considered in determining residential holding capacity:

- Existing lots of record.
- Two (2) or more contiguous lots under common ownership, for possible consolidation.
- Developed or undeveloped.
- Total acreage of lots.
- Existing Zoning.
- “Remnant” lots must be at least ½ acre in size to be considered.
- Other development constraints (i.e. slope, stream buffer, access, etc.)

The total lots of record existing in the Canyon were mapped according to the latest available information from the Salt Lake County Recorder’s office. Ownership of these lots were then determined from information from the Salt Lake County Recorder’s office and Assessor’s office. Lines were drawn on maps around lots under common ownership. For example, if there were four contiguous lots each 0.25 acres in size owned by the same person, a line was drawn around all four lots and the total size all the lots was shown, in this case 1 acre. This enabled planning staff to easily view who owned which lots, how many there were, what

size they are, and where they were located. In addition to this information, housing units and other structures were later added to determine where development has occurred. Every effort was made to keep current development counts up to date until publication of this Plan.

The maps were then reviewed and overlaid with current zoning. Using this map information, each lot was reviewed for size, ownership, lot of record status, zoning, and whether or not it was developed or improved. According to the Foothills and Canyons Overlay Zone lot consolidation provision, lots of record within a zone that required a minimum of one (1) acre parcels were calculated as being consolidated up to one-acre increments, subject to ordinance criteria. Parcels at least one-half (½) acre in size were also counted as a consolidated lot. Remnant parcels not equaling one-half acre in size were calculated as though they were combined with another consolidated lot.

For example, if Mr. Jones owned 20 lots of record which were 25 feet by 100 feet in size, his total acreage for those lots is approximately 1.15 acres. If those lots were in an FR-20 zone, under the lot consolidation provision, he would combine those lots to form a new lot that is one acre in size. The “remnant” piece of 0.15 acres is less than one-half acre in size and therefore would be combined to form a 1.15-acre parcel.

If Mr. Jones owned 30 lots of record of the same size, he would then have 1.72 acres. Again, he would combine lots to form a new one-acre lot. The remaining 0.72 acres is larger than one-half acre, and would therefore be counted as another consolidated lot, bringing his total to two (2).

Property owners with multiple acres can divide remnant lots less than one-half acre in size into other parcels as they wish. A remnant piece of property can be added to one parcel, or may be divided among many.

Lots of record less than 1 acre that comply with existing zoning, such as the FR-0.5 zone, need only be combined up to the minimum lot size of the zone. Remnant lots which are less than one-half acre in size must be combined with a consolidated lot(s) that has met the minimum lot consolidation requirement as set forth in the Foothills and Canyons Overlay Zone lot consolidation provision. For example, if Mr. Jones owns lots of record totaling 2.32 acres in the FR-0.5 zone (which requires a one-half acre minimum lot size), he would combine lots

to form four (4) one-half acre lots. The remaining 0.32 acres is less than one-half acre, and would therefore be combined with one, some or all of the other four newly consolidated lots.

Using these guidelines, all of the private property in Emigration Canyon was examined and a general range of the number of possible lots of record was established. This “Gross Potential Density” represented the “high end” of a range of properties in the Canyon. As development constraints are applied, either by planning staff, or development services staff as part of a development application review, this number is reduced. Constraints include existing development, slope, stream buffer zone, ridgeline infringement, access, availability of water (not represented due to lack of data), etc.

The high end of the range of potential lots does not accurately reflect the amount of development that may occur. Gross Potential Density assumes that no constraints other than the lot consolidation provision are applicable.

The lot consolidation figures in the Plan are based on the most accurate and detailed information available at the time of completion. The following information was used to determine lot consolidation figures:

- Lots, property and subdivision lines, sizes, and locations were taken from information from the Salt Lake County Recorder’s Office.
- Existing development information was taken from County plat maps, County Surveyor’s aerial photos, Assessor’s data, Mountain Fuel data, and field studies.
- Slopes greater than 30% were mapped by the Salt Lake County Planning Division using the most accurate topographical information available, as well as site-specific topography provided by engineering firms for individual property owners.
- 100' stream bed and buffer zone locations were mapped based on County plat maps, Federal Emergency Management Agency maps, U.S. Geological Survey maps, site specific engineering plans for individual properties, and field studies.

- 100' ridge line buffer information was produced by the Salt Lake County Planning Division, the Emigration Ridge Line Sub-Committee, U.S. Geological Survey Quadrangle maps, and site specific topographical maps.

All efforts to retain accuracy have been made, however, site specific information is necessary in order to provide exact numbers.

The following results are the tabulation of the range of potential developable lots. The highest number in the range represents a count of all lots of record, excluding lands in public ownership. This count assumes that no development constraints, such as topography, slope, zoning, etc., apply. The count also includes lots which have been developed. The successive counts narrow in number as the following constraints were applied: existing development, slope and stream buffer zone, ridge line protection, and access. Each successive count includes all previous constraints as well.

**LOTS OF RECORD** - Following the Lot Consolidation provision of the Foothills and Canyons Overlay Zone (No physical constraints applied):

**Total after lots of record are consolidated: 1136**

**EXISTING DEVELOPMENT** - (Existence of development on a property does not eliminate the possibility that additional development will occur, provided it can meet current County standards):

**Total after existing development is removed: 697**

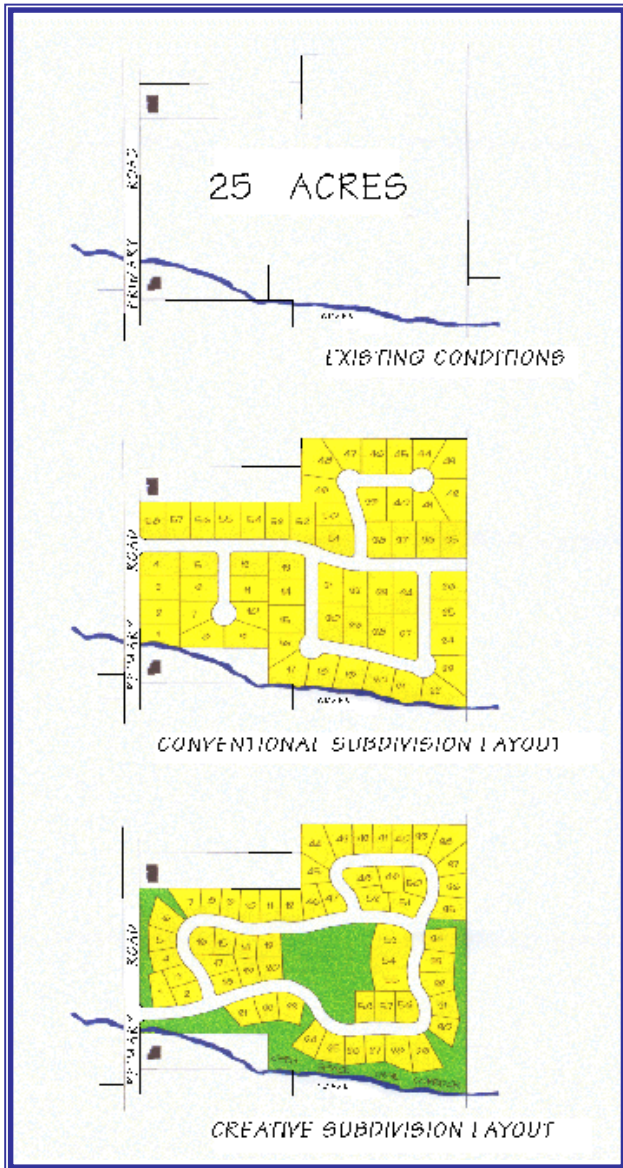
**SLOPE AND STREAM BUFFER ZONE** - (Properties which may be rendered undevelopable due to compliance with the 30% slope maximum and 100-foot stream buffer zone requirements are offered provisional waivers or other administrative relief):

**Total after stream buffer zone is applied: 458**

**RIDGE LINE PROTECTION** - Following the provisions of the Foothills and Canyons Overlay Zone, which requires a 100-foot setback from the crest of a ridge as identified horizontally on a map:

**Total after ridge line protection is applied: 452**

**ACCESS** - This constraint considers properties which have no access (Assumes current conditions only; future changes in access to properties will render different results):



*Open space is preserved or created when lots are clustered.*

**Total after lots without access are removed: 422**

At the time of completion of this Plan, no feasible means of determining the water right allocations to individual properties existed. Adequate and proper water rights are determined on a site by site basis by the Development Services Division as applications for building permits are received.

It should be noted however, that water for the Emigration Place subdivision is provided by Salt Lake City through a culinary water line. If these properties and other potential properties in Emigration Oaks, which may be reduced in total number, are removed from the count, the number of

potential lots that would require water rights could be reduced by as much as 82. This would bring the total number of lots that could potentially require water to 340.

Low Density Residential

Much of the land is currently used as recreational / open space. It is hoped that in the future a significant amount of the open space areas remain. However, when residential developments are proposed, the policies of this Plan must be considered. Residential neighborhoods and open space areas can exist together and insure compatibility with proper site design review and appropriate densities.

As development in the Canyon proceeds, special steps should be taken to insure that an appropriate amount of land is reserved when possible, for recreational uses, such as trail easements, to serve the anticipated population. Buffering the impacts from recreational uses to residential development, as well as other elements such as wildlife habitat, is important in the areas immediately surrounding the previously approved subdivisions.

All other development restrictions take precedence over the average densities allowed by the zone including geologic constraints, severe slopes, flood potential, or soil hazards policies when they are more restrictive.

Open Space Subdivision Design / P.U.D.

The Plan recognizes the need to identify and preserve open space in Emigration Canyon. In areas where residential development occurs, the type of development most conducive to open space preservation in “cluster housing” development. The cluster housing environment is the most fundamental and enduring form of human settlement. Clustered housing is joined together so that individual units share common facilities and common open spaces. The scale and organization of cluster development creates both a physical and social setting.

There are many reasons why cluster housing is a desirable alternative in the Emigration Canyon Community and many other areas of Salt Lake County when open space is preserved for a specific purpose. Society has discovered the need to understand what scales and densities of housing will

enhance privacy and safety while providing a sense of community.

Traditional suburban development is far too wasteful of land while the areas characterized as rural show minimal impacts to land. Between these extremes is cluster housing, allowing a reasonable amount of development, privacy, and public / private space. Much more social benefit can be gained by aggregating shared open space. Finally, the cost reductions in infrastructure and services, both private and public are beneficial.

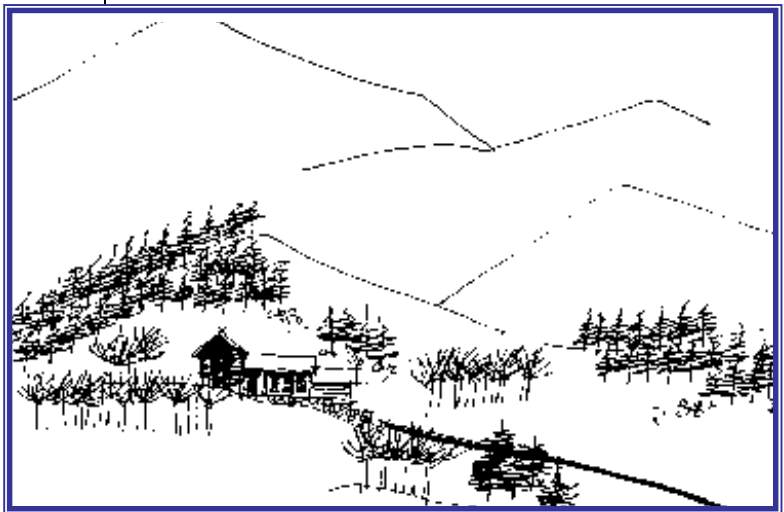
By its very nature, cluster housing suggests a greater sense of neighborhood identity than a typical single family suburb, demonstrated when the two are contrasted: cluster versus linear, compact versus sprawl, public versus private, pedestrian versus auto, and community versus individual.

This type of housing is not currently being implemented in the Canyon and should be encouraged. The Salt Lake County Zoning and Subdivision Ordinances should be revised to encourage clustered housing in an environment such as Emigration Canyon. This Plan and the zoning ordinance requirements address and can answer the questions of “how much” and “where”. However, the more difficult questions of “how” and “why” must be addressed. While it is relatively easy to agree on the number of units permissible on a tract, the traditional physical arrangement of the units dictated by the present zoning ordinance and subdivision ordinance often runs counter to the basic objective of preserving rural character and open spaces. These ordinances should offer reasons and incentive to use clustered housing in areas such as Emigration Canyon. Since the zoning ordinance and subdivision ordinance are the legal tools through which community goals are implemented, there must be a direct relationship between this General Plan and Salt Lake County’s land development ordinances.

## **Commercial Development**

The need for additional retail commercial and commercial services are not anticipated within the life of this General Plan. The commercial policies in this Plan reflect the belief that the current balance of population with services in the neighboring city is appropriate.

The Emigration Canyon Community should not be expected to provide or allow the full range of commercial uses typically found in or near suburban areas. The Wasatch Canyons Master Plan recommends that new commercial enterprises should be limited to the commercially zones areas in the Canyon. For commercial goods and services, community residents will continue to depend on the established commercial areas located to the west, such as large grocery stores, entertainment facilities and business centers.



*Balance between the natural and man-made environments should be preserved.*

## **Goals**

### Zoning

Encourage zoning which provides for single family lots in balance with the mountain setting and housing styles in appropriate locations, i.e., clustered subdivision design that utilizes open space design, provides for both larger and smaller homes, and is consistent with community resources and constraints.

### Low Density Residential

Locate future residential development in a compatible manner, observing ordinance requirements and natural constraints of the land.

### Open Space Subdivision Design

Protect significant open space by encouraging development which incorporates open space design, such as clustered housing.

Commercial

1. Continue residential development with the understanding that the commercial goods and services needs of the Canyon will be served almost entirely by Salt Lake City.

**Policies**

Zoning

1. Maintain existing zones that protect the unique canyon setting of the area.
2. Retain existing large lot zoning, and consider rezoning of additional properties to large lot zoning.
3. Encourage zoning incentives for subdivision design that promotes interaction between neighbors and a community identity.

Low Density Residential

1. Permit and accommodate well-planned and well-executed development providing single family housing opportunities which are compatible with the canyon environment.
2. Keep the amount and location of future residential development in balance with the provision of appropriate and timely public services and necessary infrastructure.

Open Space Subdivision Design

1. Encourage lower density residential development that is enhanced by open space.
2. Provide incentives, such as density bonuses, to developers that propose innovative site designs which cluster the development and preserve open space.

Commercial

Protect the canyon setting by limiting commercial development to existing commercially zoned areas.



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***SEE ZONING MAP***

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## *Foothills and Canyons Overlay Zone Summary*

***The Foothills and Canyons Overlay Zone reflects the goals and objectives of the Emigration Canyon Plan in its intent to achieve a better balance between the preservation of the Canyon's natural character and the health, safety, welfare and concern for the private property rights of those who own property in the Canyon.***

Implementation of adopted plans is best achieved through adoption and enforcement of ordinances specifically tailored to achieve the goals and objectives of those plans. On January 21, 1998 Salt Lake County adopted the Foothills and Canyons Overlay Zone, together with its associated Site Development and Design Standards. These ordinances provide formidable tools for achieving those objectives.

The Foothills and Canyons Overlay Zone reflects the goals and objectives of the Emigration Canyon Plan in its intent to achieve a better balance between the preservation of the Canyon's natural character and the health, safety, welfare and concern for the private property rights of those who own property in the Canyon.

Concern for the environment is best demonstrated through ordinance provisions on open space and visual character preservation; ridge line protection; protection of wildlife habitat and migration corridors; maintenance of water quality and the physical integrity of Canyon watercourses and wetlands; and preservation of trees and vegetation within the Canyon's confines. The safety and well-being of Canyon residents are likewise served in regulatory terms through provisions minimizing exposure to natural hazards; accommodating both vehicles and pedestrians safely and efficiently; and reduction of flooding through protection of streams from substantial alteration of their natural functions.

***Implementation of adopted plans is best achieved through adoption and enforcement of ordinances specifically tailored to achieve the goals and objectives of those plans.***

Acknowledgment and respect for private property rights is found throughout the adopted regulations.

Foothills and Canyons Overlay Zone provisions apply to all future development in the Canyon, both on newly-created and previously established lots and parcels. Lots and parcels created after the effective date of the ordinance must consist of at least one acre based on the underlying zone. Lots of record that meet the minimum lot size requirements of the underlying zone in which they are located are permitted a minimum lot size of one-half acre in size, regardless of their ownership or character of improvement status.

For lots or parcels in zone categories requiring an acre or more of land area, with commensurate lot width requirements, those that do not meet such requirements must be consolidated and will be considered to be a single, undivided lot or parcel for the purposes of the ordinance. Consideration will be given only if they are in single and common ownership and of record on

the ordinance's effective date; are contiguous; and are unimproved with structures or individual and separate connections to municipal water and sewer systems. The use or sale of such lots or parcels, or portions thereof, is prohibited when to do so renders compliance with the lot width and lot area requirements of the ordinance less feasible.

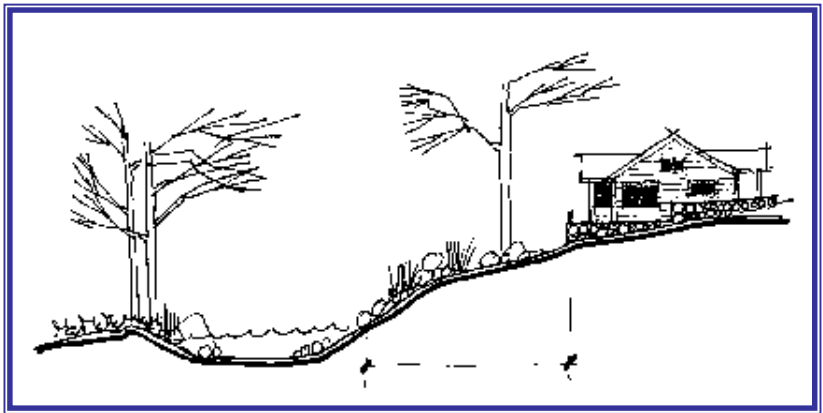
Individual substandard lots of record that are not subject to the ordinance's lot consolidation provisions shall comply with other applicable standards of the ordinance.

A clustered approach to new development is not only generally recommended but may be required by the Planning Commission if doing so will provide more open space; better preserve existing tree and vegetation cover on a site; preserve sensitive environmental areas such as stream corridors, slide areas, wetlands, and steep slopes; and have no significant adverse impact on adjacent properties or developments. In such instances not only must the architecture, height, building materials, building colors, and other design features of the development blend with the surrounding natural landscape and enhance compatibility with adjacent properties and development, but the proposal must also meet all other applicable ordinances or regulations. A density bonus is also available to promote achievement of ordinance goals and objectives.

In more general terms, the ordinance prohibits the development of structures on slopes greater than thirty percent. Development is likewise prohibited from occurring either on the crest of or within one hundred feet horizontally from the crest of ridge lines highly visible from public rights-of-way or trails. Development is likewise precluded from ridge lines determined to be prominent in conjunction with an adopted county or township plan, or as identified and designated through the county's normal development review and approval process.

Grading, excavation, or removal of any trees or vegetation is prohibited prior to completion of a review by staff and issuance of required permits. Changes to natural grade are generally limited to four feet for the accommodation of new structures or improvements. Up to six feet of grade change may be permitted, however, if a retaining wall, or series of walls separated horizontally in accordance with ordinance requirements and faced with stone or earth-colored materials to better match surrounding conditions, is used to reduce the steepness of man-made slopes.

Man-made slopes of twenty-five percent or less are greatly encouraged wherever possible. Graded or filled slopes are prohibited from exceeding fifty percent unless it can be substantiated, on the basis of a site investigation and an approved soils engineering or geotechnical report,



*The ordinance requires a minimum setback of 100 feet from stream corridors.*

that a steeper cut will be stable and will not create a hazard to public or private property. Recontouring of all cut, filled, and graded slopes consistent with the natural, varied contour of the surrounding terrain is required.

### **Stream Setback**

To promote, preserve, and enhance the important hydrologic, biological, ecological, aesthetic, recreational, and educational functions that stream corridors, associated riparian areas, and wetlands provide, Health Department regulations mandate delineation of stream corridor and wetlands boundaries; prohibit their disturbance or alteration; require a minimum building setback of 100 feet from stream corridors (including intermittent), wells and springs. A 50-foot setback from wetlands is also required, as well as preservation of existing vegetation in proximity to their banks. Filling or dredging are prohibited. Aesthetic concerns are taken into consideration in the provision of detention basins and other storm and erosion control facilities, where required.

### **Vehicular Access**

The general rule for planning streets, roads, private access roads, and other vehicular routes is to follow natural contour lines as much as possible. To extend such routes across slopes between thirty and fifty percent is generally prohibited, but may be authorized by the Planning Commission upon satisfaction of specific findings set forth in the ordinance. Driveways are subject to similar constraints, with shared access ways encouraged.

Appropriate identification and mitigation of vehicular traffic from proposed developments and provision of free-flowing access to high trip-generating sites, while minimizing congestion and unsafe conditions on adjacent public roads and streets, is accomplished through required submittal of traffic and parking impact studies. Together with overall access management plans, all of which are subsequently reviewed and enforced as a standard practice within the development review process, these measures help to achieve established traffic management objectives.

### Trail Access And Dedication

Dedication of land for cross-property connections to open space and recreational resources in the vicinity of new developments is required of those developments to reasonably accommodate the increased public access demands of the new facilities. Those who dedicate land resources for such purposes in excess of acknowledged proportional requirements are eligible for density bonuses as specified in the ordinance.

### Vegetation

Selective pruning and thinning of trees and vegetation, while allowed around habitable structures for fire prevention purposes and at driveways and intersections to enhance vehicular safety, is limited within the Canyon. Protective fencing established prior to construction and maintained throughout its duration ensures the protection of trees and vegetation on active construction sites, and is reinforced with replacement requirements for those improperly removed. Parcels of land that have been or will be altered from their natural condition by man-made activities are likewise addressed through revegetation and land reclamation requirements.

To promote and preserve valuable wildlife habitats and to protect them from adverse effects and potentially irreversible impacts, wildlife habitats designated as “critical summer/winter use” are protected through the retention of features similar to those found in the local natural landscape; establishment and maintenance of buffers between more intense human activities and core habitat areas; and facilitation of wildlife movement across areas dominated by human

activities. The involvement and cooperation of the Utah Division of Wildlife Resources in the review, comment, and recommendation on proposals for new development in areas of wildlife habitat concern ensures the viability of the adopted regulations.

In terms of administrative approaches, several mechanisms are incorporated into the ordinance to facilitate these protections. A concept referred to as “limits of disturbance” is used to contain construction and development activity on a property to a specific area(s) selected on the basis of ordinance constraints. For single family residential developments, limits of disturbance include the area required for the principal structure, an accessory structure (s), utilities, services, drainage facilities, and a septic tank. Areas required for driveways and leach fields are not included.

For lots or parcels less than 1.0 acre in size, the base limits of disturbance for an individual single-family use and associated improvements is restricted to 10,000 square feet. In the event significant existing site vegetation is retained, however, or remedial revegetation and land reclamation improvements are provided which substantially advance the purposes and objectives of the Foothills and Canyons Overlay Zone, up to 15,000 square feet of site disturbance may be authorized. A similar approach is used for properties over one acre in size, with 12,000 square feet of site disturbance being the norm, and up to 18,000 square feet available with the retention of



*Landscape to retain harmony and preserve the original character.*

significant vegetation or the provision of remedial improvements.

A comprehensive development review and approval process, incorporating pre-application consultation with property owners prior to the preparation and submittal of development proposals and mandatory involvement by a broad range of regulatory agency representatives in the review and

approval of those proposals ensures administration and enforcement of the ordinance most consistent with its goals and objectives. Ample opportunities for administrative relief from the strict enforcement of ordinance provisions which might otherwise render a property completely unbuildable balance the regulations with respect to private property rights.

## ***Foothills and Canyons Site Development and Design Standards Summary***

***In addition to the Foothills and Canyons Overlay Zone, the Foothills and Canyons Site Development and Design Standards are intended to promote a balance between the rights of landowners and the sensitive environment and Emigration Canyon. Managing specific details of site development can ensure compatible development and protect the canyon environment.***

### **Purpose and Intent**

The greatest impact on the Canyon comes from residential development. Although development is potentially damaging, it can occur in a compatible manner. Compatible development serves to protect the features of the Canyon which attract residents. In order to minimize the impacts of development in a sensitive environment, buildings should be clustered, as well as associated parking. Neighboring developments should be examined and new buildings should be coordinated with existing ones to create the most compatible development possible.

Salt Lake County's Foothills and Canyons Site Development and Design Standards were adopted to promote development that will balance the rights of the landowner with protection of the County's sensitive lands. Many of these standards are broad in nature to allow flexibility in design, insuring that development will be compatible with the natural landscape, and consistent with the public welfare.

The purposes of the Site Development and Design Standards are as follows:

- Preserve and enhance the beauty of the landscape by encouraging the maximum retention of natural topographic features.
- Encourage planning, design, and development of building sites in a manner that provides the maximum in safety and

enjoyment while adapting development to, and taking advantage of, the best use of natural terrain.

- To insure a more harmonious relationship between man-made structures and the natural setting through utilization of appropriate suitability criteria.
- To retain flexibility in respecting property owners' rights and ensure compatible development, the ordinance contains both mandatory standards and advisory standards.

### **Site Selection and Planning Standards**

In order to ensure development is compatible with a site, consideration is given not only to available land on the site, but also to specific individual merits.

The Foothills and Canyons Site Development and Design Standards promote site selection for the type of building or use being planned without major alterations to the site on the basis of suitability.

The particular opportunities and constraints of a site are important factors in the selection of a site that best suits the type of building or use.

Sites, or portions of sites that show evidence of natural or man-made hazards need to be developed accordingly.

***The development program for each site should be selected to match the available land on the site, with its specific individual merits.***



### Natural Landforms

Once an appropriate site selection has been made, selecting the best location for a structure on the site is important. The natural landforms of the site should be identified, and buildings should be sited in a manner that preserves these landforms. This is best accomplished by such means as leaving the most prominent areas of the site in their natural condition, screening structures, locating structures inconspicuously within or near tree masses or in open areas where they are less visible from roads, trails or other public lands. Thus significant views will be preserved both from the site and from other areas where views may be restricted by the building.



*Site structures so their form does not break prominent skylines.*

### Ridge Lines

Some very important and sensitive features of the foothills and canyons of the Wasatch Front are ridge lines. Ridge lines are what create the natural skyline features that attract residents to a canyon environment. Those ridge lines which are prominent should be identified and development should be sited in a manner that does not break prominent ridge lines or skylines.

### Vegetation

The natural vegetation which is present throughout the Canyon, as well as individual sites is essential to the visual quality and the physical well-being of the terrain. Trees and vegetation screen development to reduce its overall impact on the environment, provide privacy for residents, and

prevent soil degradation and erosion. Buildings should be sited in a manner that preserves significant trees and vegetation.

### Parking

Another element of development which has a lasting impact on the Canyon is the parking facility. Choice of materials, color, size and location of parking facilities all play a part in establishing a parking facility's visual impact. Impacts from parking facilities can be reduced by use of natural screening, or locating to the rear or side of main buildings facing away from a public street so as to not dominate the streetscape.

### Utility Lines

Utility lines can present a severe hazard, both visually and in the event of a break when located above ground. Utility lines should be placed underground, within existing roadways or in established shoulders. Tree cutting for utility corridors requires cuts be "feathered" to reduce visual impacts. Areas disturbed by tree cutting for utility lines should be revegetated.

### **Building Scale and Design**

Building which cause excessive cuts and fills are not compatible with the canyon environment. Likewise, building which are built on piers are not necessarily aesthetically pleasing or energy efficient. To promote compatibility in building design, the Site Development and design Standards suggest that buildings should firmly meet the ground, extensive cantilevers or cuts and fills on sensitive hillsides be prohibited, and placing buildings on piers shall be prohibited because of aesthetic and energy efficiency concerns.

Much of the property in the Canyon lies on some hillside or slope. Compatible development for this type of area incorporates a design which follows the natural terrain, minimizes land disturbance, and uses existing contours.

The mass and scale of buildings also affect their visual impact and overall compatibility. To minimize visual impacts from a building's mass and scale buildings should incorporate changes in the

planes of walls and changes in the slope and height of roof lines to add variety, create visual interest, and minimize scale, and complement rather than dominate the landscape.

### Building Materials and Colors

Preserving the natural environment means, among other things, preserving the visual quality. When man-made structures are highly visible due to color and materials, this detracts from the visual quality. Buildings should use exterior wall colors that harmonize with the landscape and surrounding buildings.

The most visible element on most buildings is the roof. Roof construction should also utilize surfacing materials that blend with the colors of the adjacent landscape. Wood roofing shingles, however, shall not be allowed to minimize fire hazards.

### Landscaping and Vegetation

Development should preserve existing concentrations of significant trees and vegetation and retain undisturbed areas as an important site amenity. Existing vegetation located within thirty (30) feet of the primary structure should be thinned and regularly maintained on a site to help minimize the risk of property damage from wildfire. Fire-resistant plants should be used whenever possible.

Where development does require that a portion of the existing vegetation be disturbed, landscaping and revegetation measures should be taken to restore the site to its original character.

### Grading

The building itself can be a source of extreme disturbance to a site. Excessive grading to create a desired effect should not be allowed. When selecting a building site existing land forms should be preserved and utilized. Grading review for development should consider that extensive cut and fills shall not be allowed, and only minimal modification of the natural terrain shall be permitted. Also, slopes steeper than 30 percent shall not be disturbed, and

buildings, driveways, and roads shall follow the natural contours of the site.

### Drainage

The Canyon contains many natural drainage areas. The patterns of these drainage areas occur naturally. Any alterations to drainage patterns by site design shall not be allowed. Final grading and drainage shall comply with the *Uniform Building Code* and “Best Management Practices.”

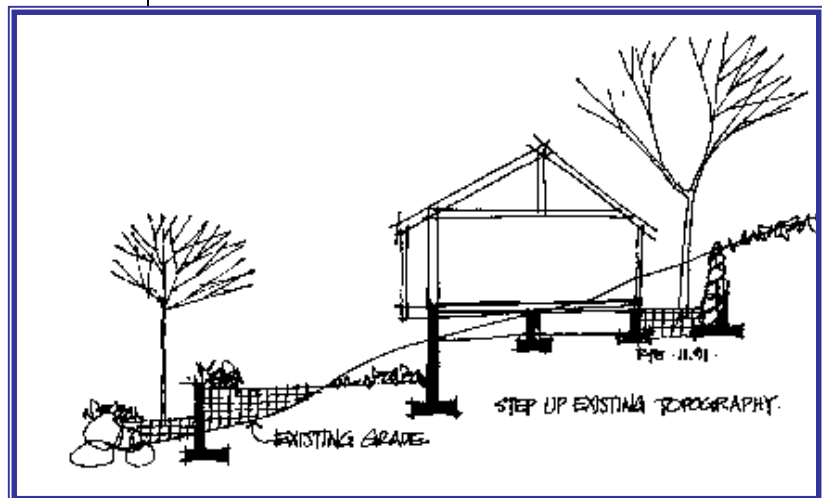
Grading should be completed in such a way as to ensure that drainage flows away from all structures, utilizing erosion control methods to protect water quality, control drainage, and reduce soil erosion.

In order to minimize the impact from development and prevent irreparable damage to stream corridors, development should occur outside of a stream buffer zone. The buffer zone is a 100 foot horizontal zone on either side of the stream or stream bed from the ordinary high water mark. Development should not alter natural waterways.

When development does occur near streams, bridges sized to pass 100-year storm events are recommended for stream crossings. Culverts shall not be allowed over perennial streams.

### Access, Circulation, and Off-Street Parking

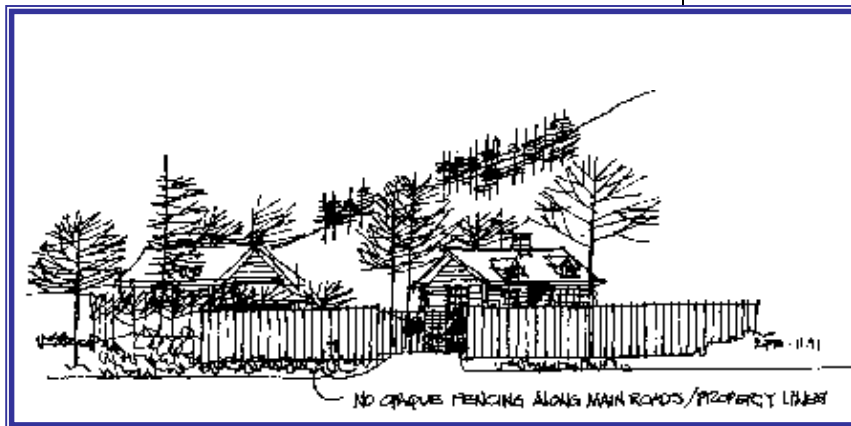
One result of development in any area, is increased traffic. Traffic too, can be handled in an efficient and compatible manner. When traffic



Buildings should be designed to limit site grading.

circulation routes must be constructed or improved in a canyon environment, its design must consider topography, slope and County minimum width and turning standards.

In a canyon such as Emigration, the issue of off street parking is essential to ensuring a safe canyon. With many residential and recreational users, providing adequate off-street parking will



*Walls and fences should respect existing land forms.*

reduce the risk of vehicular conflicts. Although recreational traffic is often seasonal, year-round access to off-street parking is still important for other Canyon traffic. Development should be considerate of the need of and provide for off-street parking. Methods to provide off-street parking include sharing driveways and parking areas with adjoining owners, providing access to off street parking areas from private driveways or roadways and not directly from a public street or road, designing and constructing parking areas such that persons accessing or leaving the site are not required to back out onto a public street, and screening off-street parking facilities.

Roads and driveways that connect the community to the Canyon should be designed in a way to reduce their visual impact.

## **Fences**

Fencing in a natural setting such as Emigration Canyon, while providing privacy for a property owner, can have a negative visual impact

for the rest of the community. Fences should be located to respect existing land forms and contours, and blend into the natural setting of the site. Fences should be limited to the minimum necessary to screen service and outdoor areas and should not utilize solid board, concrete or concrete block, chain link (except around telecommunications facilities and public utility compounds), plywood, painted materials, or vinyl as fencing materials.

Fences must be built according to the requirements of the Foothills and Canyons Overlay Zone, and the Foothills and Canyons Site Development and Design Standards. Wood rail fences and rock walls up to a maximum of 42 inches in height are allowed in front yards, along roadways and to delineate property lines. Opaque fences over 42 inches in height can be used to screen patios, dog runs and other small areas immediately adjacent to a residence. A building permit is required for construction of a fence, which is not immediately adjacent to a residence. Fencing which is located in

the Salt Lake County Right of Way must be removed, unless an encroachment permit is obtained through the Salt Lake County Engineering Division. The issuance of encroachment permits in Emigration Canyon is strongly discouraged.

## **Night Lighting**

Lighting fixtures should only be located where needed to provide for the safe movement of people on the site.

To prevent excessive lighting, outdoor lighting sources shall be shielded and directional.

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***SEE RIDGELINE PROTECTION MAP***

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## ***Implementation***

***The planning process requires ongoing community participation to achieve the Plan's goals and objectives. Many of the recommendations in this Plan require further action by individuals, developers, the Community Council, the Emigration Canyon Township Planning Commission, Salt Lake County and other public agencies.***

The Emigration Canyon Community Council provides the most direct and effective link to the elected and appointed policy and decision makers of Salt Lake County government. Planning and development proposals related to the community are discussed by the council and recommendations forwarded to county officials. Each council representative should work with their elected community officers under the guidelines of this Plan for the good of the community without unduly restricting the rights of property owners and proposed developments. The formation of the Emigration Canyon Township Planning Commission also allows for more localized control of and input on planning and zoning issues. Community Council representatives are encouraged to work closely with the township planning commission.

The success of this or any General Plan is contingent on follow-through efforts by the many groups involved. All of the hard work which went into this Plan will be of little value unless the Plan is put to work. This Plan is to be used as a guide for the decision-making process, and should remain flexible enough to allow decisions to be made that are in the best interest of the Emigration Canyon Community. The Plan and its policies allow and encourage growth at suitable locations and preserve the canyon setting of the community.

Community stability will require a continuous effort by the County, property owners and neighborhood residents to maintain and improve all elements of the community, especially now, by

setting high standards for future development Salt Lake County must assume the responsibility for developing, maintaining and improving the public infrastructure, including the dedicated public streets, street lighting, sheriff and fire protection. Local utility providers should maintain and provide adequate and timely provision of services. Property owners and residents must assume responsibility for maintaining and whenever possible improving private properties. Private property maintenance and appearance is the single most important factor in preserving the areas natural setting, its unique quality and desirability. Zoning regulations, infrastructure improvements, etc. are only supportive to private property owner's responsibilities.

Each preceding section of this Plan suggests

the specific objectives that will be necessary to realize community goals. This section outlines the more general actions that will be needed for implementation.

There are many sources available to complete the goals that are desired by the community. Volunteer efforts by the community, using all of the programs available along with the regulatory mechanisms described below, are needed to implement the Plan.

### **Monitoring and Coordination**

Salt Lake County should monitor the development taking place in the area to determine

***The success of any General Plan is contingent on follow-through efforts by the groups involved.***

the amount of development that can be expected to occur based on current zoning and zoning overlays.

The Community Council should monitor the implementation of the Plan. The Council could, at times, make general recommendations to the Planning Commission and Board of County Commissioners about changes to the Plan and its administration, if necessary.

If the Emigration Canyon Community is to progress in a positive direction, citizens must show they will not accept any undesirable situations or unsightly developments as a permanent condition in the community.

Citizens are encouraged to participate in hearings and provide input on this General Plan and on the plans and proposals growing out of this document. Active citizen support will be a powerful impetus for county departments and officials to act expeditiously on various recommendations.

Salt Lake County Development Services Division should recommend that applicants meet with the Community Council to discuss development plans early in the County's review process.

The general communication between the Planning Commission, Board of County Commissioners and the Community Council should be enhanced. This dialogue should provide an opportunity to openly discuss general problems in the community and the philosophies of each group. In addition, it would allow the Planning Commission and Board of County Commissioners to give feedback to the Council on how its participation in the development review process is perceived, or where improvements are needed.

### **Subdivision Review**

Although much of the Canyon contains steep slope areas, potential for development exists. The developments anticipated in the future are located in the FR-0.5, FR-1, FR-5, and FR-20 zones. Such developments would be subject to the Salt Lake County Subdivision Ordinance. As subdivision proposals are submitted, the ordinance will be referred to and followed to ensure that all sites

posing special problems can be corrected, or not allowed to be developed. The ordinance considers many factors, such as topography, access to the site, development costs, the ability to provide efficient public services and promoting energy conservation methods of construction. When changes to zoning and subdivisions are requested by a property owner, rezoning and subdivision plats should be in conformance with this Plan.

### **Development Standards**

It is very important for neighborhood and Canyon preservation to maintain high development standards. New development applications should be reviewed to determine compatibility with the site and adjacent areas. New developments may have conditions applied to make them as compatible and safe as possible. Proposed new developments which do not relate favorably to existing uses should not be approved.

Areas of the Canyon that have potential for limited residential development are subject to the Foothills and Canyons Overlay Zone. Therefore, the recommendations of the Foothills and Canyons Site

Development and Design Standards section should be applied to all residential development in these areas. The suggestions relate to site selection and planning, building scale and design, buffering, landscaping, grading, drainage, access, and fencing. Strengthening and improving development standards for residential uses will ensure the desired growth pattern and improve environmental and visual quality for the community residents, Canyon users, and Salt Lake County.

### **Relationship to Other Plans and Ordinances**

The policies, recommendations and maps contained in the Plan are only a part of several documents and policy guides that create the Salt Lake County General Plan. This Plan along with the following special plans and studies that apply to the entire County, should be reviewed in all development proposals to ensure compliance:

***There must be a direct relationship between this General Plan and Salt Lake County's land development ordinances.***

- Wasatch Canyons Master Plan
- Salt Lake County Parks and Recreation Master Plan
- Salt Lake County Recreational Trails Master Plan
- Salt Lake County Roadway Master Plan
- Salt Lake County Foothills and Canyons Overlay Zone Ordinance
- Salt Lake County Storm Water Management Plan
- Salt Lake County Water Conservancy District, Water System Master Plan
- 1985 Emigration Canyon Master Plan

These plans and ordinances should be used in concert with the Emigration Canyon Community General Plan. Where conflicts occur among the plans, conflicts will be resolved case by case. However, where this Plan makes recommendations related to a special plan or study, an amendment to the special plan that reflects these changes should be considered.

## Implementation Policies

### Public Services and Utilities

#### General

1. There are currently no community or service facilities located within the study area. None are planned at this time. A community survey should be conducted to determine service and facility needs.

#### Culinary Water

1. Continuous and expanded coordination should occur between the County, each of the water districts, private water systems, the U.S. Forest Service, the Environmental Protection Agency, the Army Corps of Engineers, the State of Utah, Division of Environmental Quality, Salt Lake City Public Utilities and the City-County Health Department to share and discuss information and policy positions.

2. The County should communicate with all of the water providers and inform them of the Community General Plan recommendations. (See also

“Groundwater Protection and Supply” in the Environmental Quality Section)

3. Development should continue to be monitored annually by the City-County Health Department to insure that the service level quality of the public water supply remains unaffected.

#### Fire Protection

1. The fire department should continue to review and approve or disapprove development proposals referred to them by the Development Services Division prior to approval and include the assessment of the:

- adequacy of the water supply,
- accessibility to the site for emergency vehicles,
- capacity of personnel and equipment to serve development, and on site wildfire potential, and the developers fire reduction efforts.

2. All new development must be required to provide an adequate water supply for fire fighting purposes, as required by the fire department and the Uniform Fire Code, prior to the issuance of a building permit.

3. Individual water supply sources should be sited and maintained so they are fully accessible and visible year round.

4. The intergovernmental and district agreements concerning joint responsibility for the Emigration Canyon Community and outlying areas of the county should be reviewed and strengthened to ensure that response time is as short as possible.

5. All public thoroughfares, access roads, and driveways should be designed to meet fire department equipment and access requirements.

6. The Fire Department and Forest Service should establish an information program which notifies the public of fire protection techniques and limitations in the rural and mountain environment, i.e., road conditions, distance from fire stations, and water supply limitations. Standards set forth in the Urban-



Wildland Interface Code should be formally adopted and followed, such as:

- Shake shingles or other exterior wood materials should not be used.
- Roofs on hillsides should slope the same direction as hill.
- Decks should be built using cement or block on downhill side.
- Deck bottoms should be enclosed with a flame resistant material.
- Eaves should be enclosed and vent placed at extreme outside of home.
- Wooden fences that lead to houses can act as a “fuse” for fire to follow.
- Chimneys should be constructed with spark arrester caps.
- Avoid vegetation “choked” driveways-access in or out can be become restricted.
- Landscaping should include fire breaks such as sidewalks or non-flammable pathways.
- Use native plants as much as possible.
- A combination of arrangement of plants and use of fire-resistant species should be used to create a non-combustible area that is defensible in the event of a fire.
- Leaves and fallen branches as well as dead plants and other vegetation should be promptly removed.
- Lawns should be mowed regularly and watered at proper intervals-green or wet plants burn more slowly.
- Vegetation should be pruned 6 to 10 feet up from the ground.
- Trim branches that overhang the home.
- Rain gutters and roof tops should be kept free of debris.
- Do not burn tree trimmings or garbage.

#### Sheriff

1. Law enforcement services provided by the Salt Lake County Sheriff's Department should be maintained and expanded as new growth occurs.
2. Community concerns should be addressed, including response time and presence in the community, by citizens watch groups and crime prevention programs.

#### Septic Systems

1. New septic tank systems for residential uses should be properly located and installed following all building code requirements and the regulations and permits required by the Salt Lake City-County Health Department.
2. Existing septic systems that are failing, or not maintained should be replaced or brought into compliance with safety standards.
3. Detailed water quality studies should be performed and monitored on an annual basis by the City / County Board of Health as sources of funding are identified and funds become available.
4. Diurnal and other water quality tests should be coordinated with the efforts of the Salt Lake City Water Quality and Treatment Administrator.
5. Continuous and expanded coordination should occur between the County, each of the water districts, private water systems, the U.S. Forest Service, the Environmental Protection Agency, the Army Corps of Engineers, the State of Utah, Division of Environmental Quality, Salt Lake City Public Utilities and the City-County Health Department to ensure septic systems are not affecting the public water supply.

#### **Environmental Quality and Preservation**

##### Groundwater Supply and Quality

1. To protect the water supply, new development should not deplete existing groundwater supply beyond the ability of the local area to recharge itself.
2. The State and County should be continue to strictly enforce the conditions placed on well permits and water augmentation plans.
3. An erosion control plan should be required for development as explained in the “Submittal Requirements: Grading Plan,” Section A.2-9 of the Foothills and Canyons Overlay Zone. Erosion control plans should comply with 42 U.S.C. §402 (p) of the Clean Water Act. The state requires developments over 5 acres to obtain a storm water discharge permit and submit an erosion control plan

in accordance with Section R-317-8, Utah Pollutant Discharge Elimination System, of the Utah Administrative Code.

4. Septic locations should be sited in a manner which minimizes the risk of ground water pollution.
5. Increased enforcement of water consumption limitations should be instituted by metering and review of water usage.
6. A comprehensive study of groundwater quantity and quality should be completed by the State and County for the area. The County and the affected water district(s) should participate in ongoing studies and monitoring of water quality in the Canyon.
7. The Salt Lake City / County Health Department should continue to require that homeowners have their septic tanks periodically pumped every 8 to 10 years.
8. Sources of funding should be identified and utilized to increase monitoring of individual septic systems and enforcement of regulations requiring periodic pumping of septic tanks by the City / County Health Department.
9. A sewer system along Emigration Canyon Stream should be examined by the Canyon residents as a future possibility to preserve water quality.
10. Waste storage locations, use of landscaping chemicals, and locations for livestock/animal corrals should be taken into consideration by canyon residents to protect surface water and ground water quality.

#### Visual Resources

1. The significant visual resources that should be protected and enhanced include: meadows, ridges, hillsides, waterways, vista areas, and unique vegetation.
2. Land uses that are compatible with the visual resources are encouraged. For development proposed in a sensitive area, the Foothills and Canyons Site Development and Design Standards

should continue to be followed ensuring compatibility with the natural environment.

3. Maximum use should be made of a sites' capacity to screen development from view. For areas with less than adequate natural landscape screening, the visual diversity and landscape screening of the site should be enhanced.
4. Development near ridges should comply with the provisions of the ridge line protection section of the Foothills and Canyons Overlay Zone.
5. All disturbed areas should be revegetated.
6. Unsightly aspects of existing housing and other development should be cleaned up, buffered and/or screened.
7. Public natural areas and undeveloped open areas should be designated and preserved. Private natural and open areas within a development should also be protected. Several techniques for preserving these areas are provided in the Trails Access section and in the Foothills and Canyons Site Development and Design Standards section.
8. In the development review process, each proposal should be reviewed to confirm its potential impact to visual resources. In addition, the policies in the other sections of this Plan should be referenced.

#### Wildlife

1. During the development review, all proposals should be referred to the Utah Division of Wildlife Resources for comment, and recommendations.
2. The Utah Division of Wildlife Resources should research and identify any endangered species and the their habitats, significant riparian habitats, and wildlife movement corridors in Emigration Canyon.
3. Roads should be posted with signage to alert drivers of wildlife habitat areas and game crossings.
4. A network of public and private open space and trails should be developed to preserve wildlife habitats and provide areas where the public can view wildlife without disturbing important habitats.

5. Where deer winter ranges exist, the appropriateness of development proposals should be evaluated case by case and conform with the recommendations in the Foothills and Canyons Overlay Zone section.

6. Mitigation plans and recommendations from the State Division of Wildlife Resources should be a significant factor in development review.

7. Salt Lake County in conjunction with the Division of Wildlife Resources, should continue to update the mapped critical wildlife habitats.

8. Incentives should be provided to property owners whose development preserves critical wildlife habitat areas. Sensitive site design is also a valuable tool to protect wildlife habitat. Examples include:

- leave the wildlife habitat in a natural state;
- avoid severe cuts and fills that would disrupt wildlife movement;
- minimize the disturbance of areas by clustering development; and,
- avoid fencing that would restrict wildlife movement.

#### *Air, Odor, and Noise*

1. The County should support legislation to strengthen vehicle emissions standards, and increase enforcement of these regulations.

2. Housing development should be planned to ensure safe and efficient septic systems. The waste disposal system should employ appropriate technology and avoid producing noxious odors.

3. Septic systems located near stream beds should be properly sited and inspected to prevent the possibility of contamination to the stream.

4. Federal, State and County agencies should strictly enforce the established air quality, and noise standards throughout the county.

5. The Plan endorses the strict compliance with county legislation regulating fireplaces and wood burning stoves. The State and County should

encourage retrofitting existing fireplaces and stoves to bring them into compliance with standards.

6. Residences with wood burning fireplaces and stoves should voluntarily comply with no burn days when requested.

7. Stream and wetland buffers should be strictly enforced where septic systems may occur.

### **Transportation**

#### *General*

1. Improvement of all roads should, where appropriate, comply and follow Salt Lake County Road Standards.

2. Base calculations and decisions regarding the use of Emigration Canyon Road on its environmental capacity, such as determined by the Fehr & Peers report or similar study.

3. Rights-of-way which contain trails or other recreational venues should be preserved.

4. Approval for a vacation of a right-of-way should not be given unless it has been determined that the County has no existing or future need for the use of that right-of-way.

5. Consideration should be given for a re-platting of the Groves Subdivision, Mountain Top Park Addition, Maple City Subdivision, and the Pioneer Addition subdivisions to analyze right-of-way uses, and antiquated lots of record.

#### *New Roads*

1. New public and private roads should comply with County Standards.

2. The planning and development of new roads, including private roads, should be reviewed and approved by the County Engineering Division prior to construction, to protect natural drainage patterns, minimize cuts and fills, and prevent the unnecessary scarring of hillsides.

3. As new roads are proposed, the County and other agencies involved should promote community and citizen involvement in decisions regarding transportation issues.

4. Roads and other vehicular routes should not cross slopes greater than 30-50 percent unless, after review by the County Commission, it is determined that appropriate engineering measures can be taken to minimize impacts of the cuts/fills and the environment/aesthetics are not significantly affected.

5. Transportation projects should include consideration of pedestrian walkways, bicycle lanes, signage and lighting wherever these factors are applicable.

6. Stub streets and fragmented street patterns should be avoided in the future.

7. Salt Lake County, property owners and developers should bear a proportionate financial responsibility for providing road improvements. The funds generated for road improvements to correct deficiencies and accommodate new development should remain in the community. The funds are most needed to provide asphalt resurfacing and bike lanes based on the prioritization and needs system established by the County Engineering Division.

#### Upgrading Roadways

1. Planned road safety improvements should be made only when the community character can be maintained, the associated environmental impacts are acceptable and public costs for the improvements do not exceed the potential benefit derived.

2. The collector and local roads maintained by Salt Lake County should have sufficient width for the function they serve, and include turning lanes and other safety improvements where appropriate.

3. The needed right-of-way dedications, payment of fees into the highway fund or bonding for the road improvements by property owners or developers is essential for completing necessary improvements.

## **Open Space and Recreation**

### Open Space

1. Salt Lake City and the U. S. Forest Service manage public open space in the study area. These agencies should continue to communicate with each other. Improved communication among these groups and Salt Lake County will result in more efficient management of the public lands.

2. Private property which has little or no development potential should be reviewed for inclusion in an open space preservation program.

3. Property owners interested in open space preservation should consider creating a land trust, or donating land to a trust, such as Utah Open Lands.

4. Private open space should be protected, and its creation should be encouraged to safeguard the canyon setting, maintain visual and scenic quality, protect key wildlife habitats, buffer existing and future development, and to provide open land experiences within the private developments.

5. A trails network should be developed that provides trails for pedestrians, biking, and other non-motorized trail activities. These trails should:

- vary in distances and trail opportunities available;
- traverse diverse landscapes;
- link various areas of the community;
- access views and vistas;
- intersect to allow the traveler a choice of paths to a destination; and,

6. Trail corridors should utilize floodplains, public rights-of-way, utility rights-of-way, and open space, where possible.

7. Trails corridors should be used to connect public and private open space parcels.

8. Private development and the associated open spaces should link to the public trails system or provide public trails access through their property to link the whole system.

9. Accessible trails should be provided for all citizens.

10. Trails should be constructed in accordance with the Salt Lake County Regional Trails Plan, available through the Salt Lake County parks and Recreation Division

#### Recreational Uses

1. Active (such as hiking, biking, or jogging) and passive (such as walking, picnicking, or nature watching) recreational sites should be located throughout the study area to diffuse the impact of future growth on any one area. These recreational areas could be located to create greenbelt separations that will help preserve the uniqueness of the area.

2. Future acquisition of undeveloped land for public benefit should be related to the following planning objectives:

- maintenance of important visual resources;
- provision of needed active recreational opportunities;
- protection of significant wildlife habitats and wildlife corridors;
- protection of areas subject to significant natural hazards; and,
- provision of a connecting trails system.

#### Trails Access

A full range of strategies will be required to retain the public and private open space and trail corridors throughout the Emigration Canyon Community. The strategies are suggestions to be studied and used in concert with each other.

1. New acquisitions of open space should be pursued in the future. The public entities responsible for open space, and trails should communicate regularly. Acquisition strategies include:

- state and federal grant monies;
- general obligation bonds or revenue bonds;
- private land trust purchase lands or easements;

- donation to the County or private land trust; and,
- corporate donation of land in exchange for appropriate tax benefits;
- general fund allocations.

2. When full acquisition is not possible, practical or desirable, other innovative techniques should be used to preserve open space, such as conservation easements, donated easements, retirement of development rights, and dedication of easements as a condition of development approval.

3. Liability releases should be instituted and used to remove this obstacle to the creation of trails in accordance with the State Landowner Liability Act of 1987.

4. Salt Lake County, the incorporated cities, and all other governmental agencies should cooperate to support an integrated recreational open space system that will maximize county-wide public funds spent in trail and open space development and minimize unneeded duplication.

5. All jurisdictions should respond to the Trails Plan by securing easements and property for proposed trail corridors within their jurisdictional area as soon as possible, including trail easements for re-platted subdivisions.

#### **Natural Hazards**

Where natural resource and hazard areas have been identified, the policies developed for each constraint or sensitive area must be considered and may reduce the maximum residential density of a site. When more than one constraint or sensitive resource area exists, the more restrictive policy applies.

#### Geologic Setting

1. As a policy, no development should occur in geologic hazard areas and other natural hazard area unless adequate mitigation or elimination of the potential hazard can be demonstrated.

2. Natural hazards are found throughout the Emigration Township. In areas where a low to

moderate hazard potential is present, development plans must be reviewed to verify that natural hazards will not impact the proposed development. Developers, therefore, may be required to submit engineering geology and/or geotechnical engineering studies prepared by a qualified engineering geologist and/or professional engineer. County ordinances require that these investigations evaluate the site conditions and provide recommendations for any required mitigation. Specific hazards which must be addressed are: stability of both natural and cut/fill slopes, landslides and debris flows, seismicity, flooding and flood plain areas, and soil conditions pertaining to foundation design. If a hazard is present that could affect development, the appropriate ordinance requirements, mitigation recommendations, and site design guidelines must be followed. Where grading and retaining walls are required, appropriate design and construction recommendations must be provided.

3. Development should not be approved in high hazard areas, including: steep slopes, poor soils, flood plains, and wetland areas.

4. Potential hazards that may be created by development should also be evaluated during both the application review and construction phases. Such hazards might include destabilization of slopes, soil or rocks caused by construction of road cuts or utility extensions; changes in drainage patterns; and soil erosion that results in damage to adjacent properties. Adjacent structures and the natural environment must be protected.

#### Topography and Slope Stability

1. In conformance with the Foothills and Canyons Overlay Zone no new development should be allowed on slopes steeper than 30 percent.

2. Slope stability analyses should be conducted as part of any development proposal in support of planned cut or fill slopes, retaining walls, or other site disturbances on sloping terrain.

#### Soil Related Hazards

1. Careful planning and engineering should take place before development in areas with moderate and severe soil constraints. Soil characteristics to be considered are slope, drainage, depth to water table, texture, presence of shrinking and swelling clays, erosion potential and bearing capacity.

2. Disturbed areas should be graded and revegetated as quickly as possible to reduce the erosion potential.

3. Septic tanks or drainfields should continue to be prohibited where highly permeable soils exist unless groundwater quality is maintained. Health Department regulations allow percolation rates of one to sixty minutes per inch (mpi). Health Department regulations should be changed to create a limit of five or ten mpi. Few areas in the Canyon have highly permeable soils.

#### Hydrology and Flooding

1. Development in the 100-year floodplain and adjacent areas should comply with all floodplain regulations.

2. The amount and type of development in areas susceptible to flooding should continue to be closely monitored to prevent potential safety hazards and limit unnecessary expenditures, both private and public.

3. Floodways must be considered in development planning. Development should consider streams, flood plains, high water table, and riparian habitat areas.

4. Undeveloped areas should be maintained along waterways and their flood plains. These zones provide areas where water can overflow without damaging property, facilitate access for flood control work, provide open space for recreation and study, and can be vegetated to stabilize banks and reduce erosion and sedimentation.

5. Stream setback requirements should be recognized along Emigration Creek and tributary channels. Floodplain hazard regulations should be followed.

6. A mitigation / alternatives study for existing uses in the floodplains should be done to identify measures that can be used to reduce the flooding potential. The following list of issues should be studied:

- Human safety
- Land use options
- Design options
- Riparian habitat values
- County responsibilities

7. Stream channel improvements should use a natural design approach rather than concrete channelization or covered culverts. A “natural” design approach toward stream channel improvements in an evaluation of both upstream and downstream channel conditions with regard to stream flow, channel gradient, stream bank slopes, bed material, stream bank vegetation, channel width and depth, stream sinuosity and wildlife habitat, and utilization of native or natural materials to best emulate those conditions in order to ensure adequate flood control, erosion control, wildlife habitat preservation and natural stream integrity.

#### Wetlands

1. A wetlands investigation should be conducted prior to all development near or surrounding water features.
2. Salt Lake County and the Army Corp of Engineers should identify, review, update and protect wetland areas in the study area.

#### Seismic Hazards

##### Ground Shaking

1. All new construction in the Emigration Canyon Township is required to be designed and built in full accordance with the most current applicable Uniform Building Code requirements.
2. Older, unreinforced masonry buildings pose the greatest risk to damage and injury to persons during seismic events. Remodeling or renovation of existing buildings in the Canyon provide an excellent opportunity to increase seismic survivability of older structures.

3. Development of any special occupancy facilities in the Canyon should be prefaced by studies addressing seismic site conditions, ground shaking amplification, fire codes, and recommendations for seismic resistant design as appropriate.

4. Slope stability analyses for any cut and/or fill slope must consider dynamic loading from earthquake ground shaking.

#### Soil Liquefaction

1. For critical facilities and special occupancy structures, such as, schools, fire stations, hospitals, and other public facilities, the Natural Hazards Ordinance requires that a site-specific study be conducted in low and very-low liquefaction potential areas prior to approval.

#### Surface Fault Rupture

1. No surface fault rupture-related considerations are required for development in Emigration Canyon.

#### **Land Use Policies**

Due to the limited amount of developable land and existing zoning, no land use plan or map exists for the Canyon. The following are policies regarding land use and development.

#### General

1. Fences must be built according to the zoning provisions for new developments and requirements of the Foothills and Canyons Overlay Zone, and the Foothills and Canyons Site Development and Design Standards. Wood rail fences and rock walls up to a maximum of 42 inches in height are allowed in front yards, along roadways and to delineate property lines. Opaque fences over 42 inches in height can be used to screen patios, dog runs and other small areas immediately adjacent to a residence. A building permit is required for construction of a fence, which is not immediately adjacent to a residence. Fencing which is located in the Salt Lake County Right of Way must be removed, unless an encroachment permit is obtained through the Salt Lake County Engineering Division.

2. The issuance of encroachment permits in Emigration Canyon is strongly discouraged.

### Zoning

1. As a standard, residential densities allowed should conform to the limits of the zone.

2. Rezoning of areas should occur to better fit characteristics of the site and conform with the recommendations of this Plan. Selection of areas to rezone should be initiated by Salt Lake County, the Emigration Canyon Community Council or cooperative effort by property owners.

3. The existing FR-5 zone just west of Burr Fork should be rezoned to FR-20. A density bonus for open space subdivision design should be allowed on the new FR-20 zone. This bonus should allow for an overall density of 25% maximum lot coverage. This coverage would allow the same unit density as would be possible in the FR-5 zone.

4. Voluntary lot mergers are encouraged to create parcel sizes or building pads following the Plan's recommendations, and the standards of the Foothills and Canyons Overlay Zone.

5. It is recommended that re-platting should occur to bring sub-standard lots into compliance with the minimum lot size recommendation of the Foothills and Canyons Overlay Zone. The minimum recommended lot size in Emigration Canyon should be one (1) acre, or to the minimum of the zone if the zone allows less than one acre (i.e. ½ acre in the FR-0.5 zone). Re-platting should occur in the Groves Subdivision, Mountain Top Park Addition, Maple City Subdivision, and the Pioneer Addition subdivisions.

6. Re-platting should occur in areas which are determined by Salt Lake County, Emigration Canyon Township Planning Commission, Emigration Community Council, land owners, or citizens, to bring sub-standard lots into compliance with County ordinances.

7. Salt Lake County Development Services Division should continue to enforce all zoning

regulations and development requirements to ensure the health, safety, and welfare of Community residents. Complaints of violations or nuisance should be verified by enforcement officers and corrected immediately.

8. Zoning provisions for new developments and existing lots must be followed. Properties and structures in violation of zone requirements, building codes or other conditions must be brought into compliance. Every effort by the Salt Lake County Development Services Division and other agencies must be used to solve the isolated problems with code enforcement that exist in the area.

### Low Density Residential

1. New development should continue to be reviewed to ensure compliance with the Foothills and Canyons Overlay Zone and the Site Development and Design Standards, observing all applicable recommendations including building material color and selection, building scale and design, grading, landscaping and vegetation, parking, fences and other factors included in the ordinance.

2. Salt Lake County should more strictly enforce compliance with County ordinances and codes for development projects.

3. Traffic generated by new development should not exceed the capacity of the roadways and recommended "Level of Service".

4. Mapped constraints should be verified by the applicant, the Development Services Division, the Emigration Canyon Township Planning Commission and appropriate agencies during the review process, and considered in the development design. Site specific analyses should be completed to identify constraints for new development prior to application approval.

### Open Space Subdivision Design



1. In each zone allowing open space subdivision design the lot size may be reduced from the general lot size of that zone district to a specific minimum lot size. The increased density and all such lot reductions shall be compensated by an equivalent amount of land in open space to be preserved and maintained for a recreational amenity or conservation purpose. The overall density of the development should not exceed the maximum density allowed in the zone

2. Salt Lake County should continue to provide the opportunity for innovative subdivision design to mitigate the undesirable impacts created by standard subdivisions.

*Commercial Development*

1. No new commercial zoning should occur in the Canyon.

2. Future commercial development along Emigration Canyon Road could occur near the entrance to Emigration Place P.U.D. This potential site should be evaluated on an individual basis. Guidelines for commercial development are subject to the Foothills and Canyons Site Development and Design Standards section.

3. Future commercial development should be designed to serve mainly the Canyon residents. The uses, scale, site design, and hours of operation should be compatible with the canyon setting.

4. Any new commercial development should occur in the commercial space available.

## Appendix A

### Amending the General Plan

The Emigration Canyon Township Community General Plan constitutes a land use policy document that was created based on the 1985 Master Plan and updated to reflect prevailing needs, the existing pattern of development, underlying zoning classifications, new zoning overlays, consideration for man-made and natural constraints, development potential, and accepted planning practices. The plan is generally valid for 5 to 10 years. Over time these variables are subject to review and change due to many circumstances including unforeseen conditions, new development trends, natural constraints and advancements in technology and information. The Plan may be periodically amended reflecting these circumstances, thus allowing the plan to remain flexible and effective.

Amendments to the plan should only be allowed to occur in the most extreme of circumstances, where careful review and consideration of an amendment request determines that a study to be conducted by the Salt Lake County Planning Division staff is necessary. The study in its determination, as well as the determination of the Planning Commission and County legislature, must indicate that circumstances have changes significant enough that an amendment is warranted.

The process for amending the Plan is the same for that of adopting it, according to Section 17-27-03 of the Utah State Code that reads:

- a) After completing a proposed general plan for all or part of the area within the county, the planning commission shall schedule and hold a public hearing on the proposed plan.
- b) The planning commission shall provide reasonable notice of the public hearing at least 14 days before the date of the hearing.
- c) After the public hearing, the planning commission may changes to the proposed general plan.
- d) The planning commission shall then forward the proposed general plan to the legislative body.
- e) The legislative body shall hold a public hearing on the proposed general plan recommended to it by the planning commission.

- f) The legislative body shall provide reasonable notice of the public hearing at least 14 days before the date of the hearing.
- g) After the public hearing, the legislative body may make any modifications to the proposed general plan that it considers appropriate.
- h) The legislative body may:
  - Adopt the proposed general plan without amendment;
  - amend the proposed general plan and adopt or reject it as amended; or
  - reject the proposed general plan.
- i) The general plan is an advisory guide for land use decisions.
- j) The legislative body may adopt an ordinance mandating compliance with the general plan.

In addition to the state code which sets forth the procedures for the adoption and amendment of general plans, the Salt Lake County Zoning Ordinance sets forth the procedure for submitting an application to amend the general plan. Chapter 19.90.070 reads as follows:

#### **19.90.070 Application to amend the master plan.**

Subject to the restrictions in Subsection 19.90.080 and 19.90.090, any property owner or authorized agent thereof may file an application requesting that the planning commission hear an amendment to the county master plan. Such application shall include the reasons or basis upon which the property owner believes the county master plan should be amended. The planning commission shall consider an application to amend the county master plan only if it first determines that there has been a change of circumstances or other sufficient reasons to justify consideration of an amendment to the county master plan. A decision by the planning commission not to consider an amendment to the county master plan may be appealed to the board of county commissioners pursuant to the procedures set forth in Section 19.90.040. Amendments to the county master plan shall comply with the procedures set forth in Chapter 27 of Title 17 of the state code. (Ord. 1152 § 2, 1991)

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## Appendix B

### Trails Identification

#### Emigration Canyon

The existing access points in the canyons are not described in the following text because they are already legal access points. All the existing access points should be preserved and maintained. Following are trails as identified on the Trails Access Plan map, page 51.

##### #1

*Access:* Potential

*Property Ownership:* National Forest, Salt Lake City

*Situation:* This access point begins off the north side of Emigration Canyon Road on public land. The trail heads up the hill and into the National Forest. The trail then continues along and eventually reaches This Is The Place Monument and the Bonneville Shoreline Trail. This trail is used by a lot of people as a trail connecting Emigration Canyon with the Monument.

##### #2

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This access point begins off the north side of Emigration Canyon Road on private land. The trail heads to the west along the pipeline up the hill and into the National Forest. The trail then continues along the pipeline and reaches This Is The Place Monument and the Bonneville Shoreline Trail. This trail is also used by a lot of people as a trail connecting Emigration Canyon with the Monument.

##### #3

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This access is similar to #2 in that it follows the pipeline trail but in an eastern direction. The trail starts on private land, eventually reaching the National Forest and a number of other trails. This trail receives a considerable amount of use and should be studied for legal access to preserve a trail going up the canyon.

##### #4

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This trail also starts on private land and connects with the pipeline trail as well as other trails. It is an important access point to acquire although #2, #4, and #5 could all be combined into one access point. At least one access point from this general area should be acquired to provide access to the pipeline trail and the other trails in the area.

##### #5

*Access:* Local

*Property Ownership:* Private, National Forest

*Situation:* This is a local access from the end of a private road. It is used only by the local residents to access the pipeline trail and adjoining trails.

**#6 - Pioneer Gulch**

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This trail begins directly south of the Emigration Grove subdivision on private land and runs down the canyon until it reaches Pioneer Gulch where the trail proceeds up the Gulch. The trail ultimately reaches the National Forest near the top. Legal access will likely need to be secured sometime in the future.

**#7**

*Access:* Local

*Property Ownership:* Private, National Forest

*Situation:* This trail begins at the access road to Emigration Oaks. It is located where the pipeline trail crosses the road. In addition to the pipeline trail, a smaller trail heads up the hillside but does not get much use. The access point would be a good place to connect Emigration Oaks with the pipeline trail.

**#8 - Freeze Creek**

*Access:* Potential

*Property Ownership:* Private

*Situation:* This access point begins at the end of Margarethe Lane off of Emigration Canyon Road. The trailheads up the hillside along the Freeze Creek drainage through private land, then connects up with other trails, which lead into the National Forest. This is a very popular area for recreational activities even though it is private land. In addition, the Emigration Oaks subdivision is continually being added to and trail access is being lost. It is very important to provide access through the subdivision to the National Forest for the general public as well as the local residents.

**#9**

*Access:* Potential

*Property Ownership:* Private

*Situation:* This access point is similar to #8. It is a trail leaving from the same road and in the Freeze Creek drainage. It accesses the National Forest and one of the most beautiful areas in Emigration Canyon. This access point is also threatened from the expansion of Emigration Oaks. It is crucial to acquire trail access at this point.

**#10**

*Access:* Local

*Property Ownership:* ???

*Situation:* This is a short trail behind some houses along Emigration Canyon Road. The trail heads up to the pass between Emigration Canyon and Mountain Dell Canyon. The amount of use it receives is not known, but legal access will likely need to be secured sometime in the future.

**#11**

*Access:* Existing

**#12**

*Access:* Existing

**#13**

*Access:* Local

*Property Ownership:* Private, National Forest

*Situation:* This trail begins at the western edge of Killyons subdivision. Immediately after leaving the subdivision the trail is on National Forest. The trail heads up the hillside and connects with other trails. Use is minimal and probably limited to local property owners.

**#14**

*Access:* Local

*Property Ownership:* Private, National Forest

*Situation:* This trail is exactly like #15 but in a location further north. It is a more immediate connection to the other trails.

**#15 - Killyon Canyon**

*Access:* Needed

*Property Ownership:* Private, National Forest

*Situation:* Access from this point begins at the end of a subdivision where the road turns from paved to dirt and eventually becomes a trail. The access point begins on National Forest, crosses private land, back onto National Forest and ultimately onto private land. The access needs to be secured through the private lands. The trail is used by numerous users from all over the valley in addition to local residents. The trail provides access to Mountain Dell Canyon, Lookout Peak, and also is part of a loop trail from the top of Emigration Canyon.

**#16**

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This trail begins halfway up Killyon Canyon in a side drainage. The trail begins in an old platted subdivision and heads to the north. The amount of use is unknown but access should likely be secured sometime in the future.

**#17**

*Access:* Potential

*Property Ownership:* Private, National Forest

*Situation:* This trail begins at Burr Fork Road and gradually traverses the hillside, reaches the National Forest and the top of the hill where the trail connects up with other trails. This is the main connection from the Emigration Oaks subdivision and the trails surrounding it to Burr Fork. A lot of people use this trail system. Access should be obtained in the critical areas in order to maintain these trails as a functional trail system. This system would complement the Emigration Oaks Subdivision.

**#18**

*Access:* Needed

*Property Ownership:* Private, National Forest

*Situation:* This trail begins at the public roadway at Pinecrest. The trail climbs steeply to the east and follows a level plateau. It is an existing locally used trail, with access to several side canyons.

**#19**

*Access:* Existing

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# Appendix C

## Soil Data Table

Soil Symbol	Bedrock Depth	Shrink-Swell Potential	Permeability, Inches per Hour	Septic Tank Absorption Fields	Risk of Corrosion Uncoated Steel	Risk of Corrosion Concrete	Potential Frost Action	Erosion Factor K	Erosion Factor T	Dwellings with Basements	Dwellings without Basements	Local Roads and Streets
<b>AGG</b>	10-20"	Low	0.6 - 2.0	Severe <sup>1,2</sup>	High	Low	Moderate	0.1	1	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>
<b>BCG</b>	10-20"	Low	0.6 - 2.0	Severe <sup>1,2</sup>	Moderate	Low	Low	0.05	1	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>
<b>BEG</b>	60-60"	Low	0.6 - 2.0	Severe <sup>2</sup>	High	Moderate	Moderate	0.1	5	Severe <sup>2</sup>	Severe <sup>2</sup>	Severe <sup>2</sup>
<b>DGG</b>	60-60"	Low	0.6 - 2.0	Severe <sup>2,3</sup>	High	Moderate	Moderate	0.2	4	Severe <sup>2</sup>	Severe <sup>2,5</sup>	Severe <sup>2,4,5</sup>
<b>EMG</b>	10-20"	Low	0.6 - 2.0	Severe <sup>1,2</sup>	High	Moderate	Moderate	0.1	1	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>
<b>FOG</b>	14-20"	Low	0.6 - 2.0	Severe <sup>1,2</sup>	Moderate	Moderate	Moderate	0.1	1	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>	Severe <sup>1,2</sup>
<b>HGG</b>	60-60"	Moderate	0.6 - 2.0	Severe <sup>2,3</sup>	High	Moderate	Moderate	0.17	5	Severe <sup>2,5</sup>	Severe <sup>2,5</sup>	Severe <sup>2,4,5</sup>
<b>HHF</b>	60-60"	Moderate	0.6 - 2.0	Severe <sup>2,3</sup>	High	Moderate	Moderate	0.17	5	Severe <sup>2,5</sup>	Severe <sup>2,5</sup>	Severe <sup>2,4,5</sup>
<b>LSG</b>	60-60"	Low	0.6 - 2.0	Severe <sup>2</sup>	High	Moderate	Moderate	0.15	5	Severe <sup>2</sup>	Severe <sup>2</sup>	Severe <sup>2</sup>
<b>PCG</b>	60-60"	Moderate	0.6 - 2.0	Severe <sup>2,3</sup>	High	Low	Moderate	0.1	2	Severe <sup>2</sup>	Severe <sup>2</sup>	Severe <sup>2</sup>

Reference: United States Department of Agriculture, Natural Resources Conservation Service, National Soil Survey Handbook - Parts 618

- Soil Properties and Qualities, 1996; Part 620 - Ratings Guides, 1993.

Source: Mike Domeier, Soil Scientist  
Natural Resources Conservation Service,  
Salt Lake City, UT

Symbol Names

- AGG..... Agassiz
- BCG..... Brad
- BEG..... Bradshaw
- DGG..... Deer Creek
- EMG..... Emigration
- FOG..... Foxol
- HHF..... Harkers
- LSG..... Lucky Star
- PCG..... Pkayune
- SMG..... St. Mary's

**SOILS:**

Constraints to Development

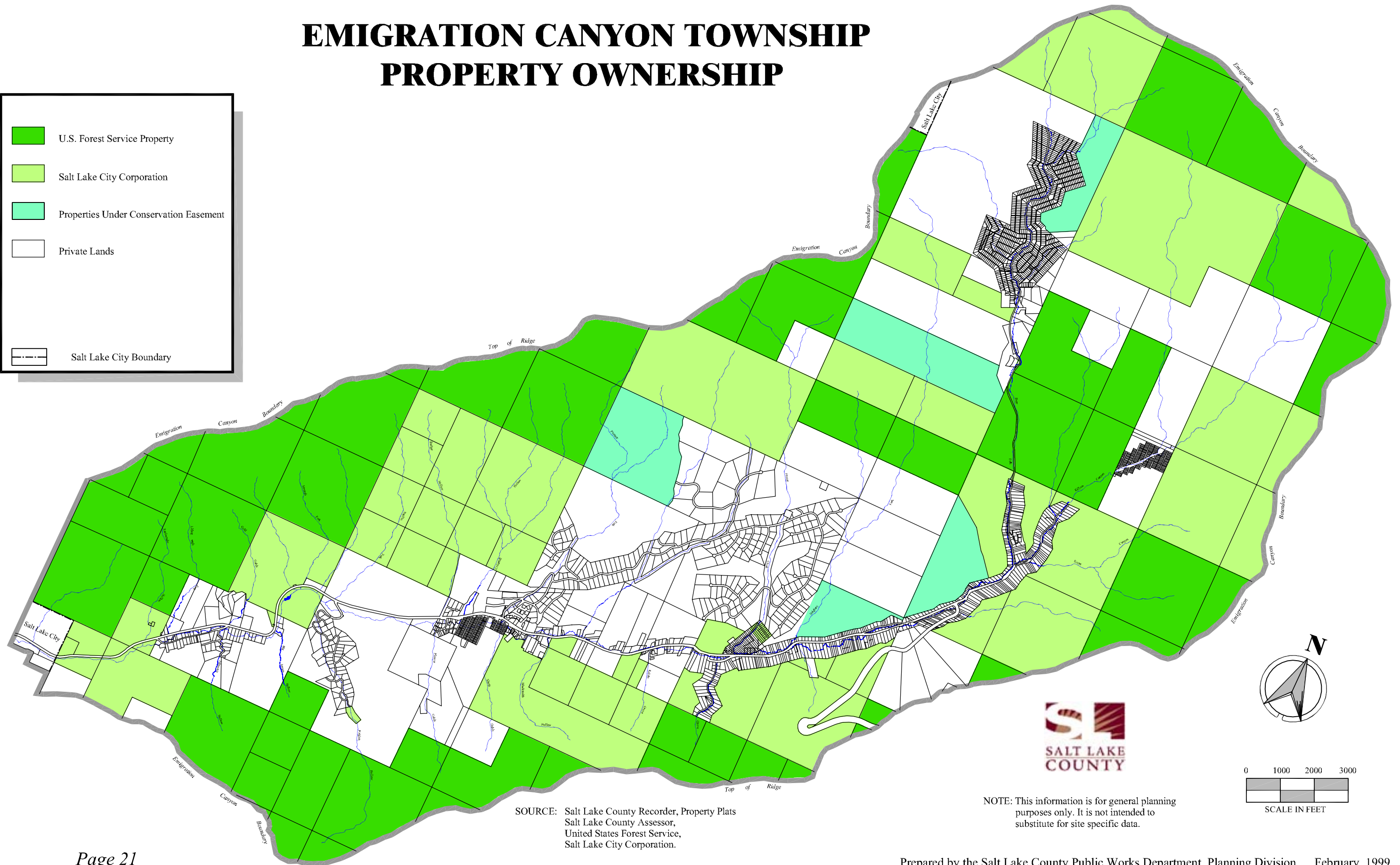
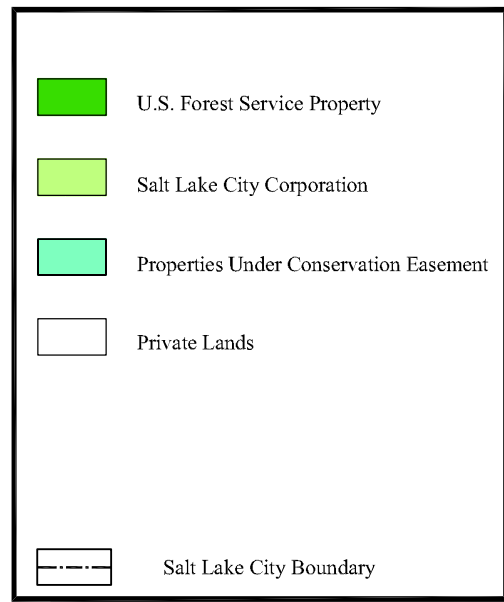
- 1 Indicates depth to bedrock constraint.
- 2 Indicates slope constraint.
- 3 Indicates low percolation constraint.
- 4 Indicated low strength constraint.
- 5 Indicates shrink-swell constraint.

Loamy Barrow Pits (Lo), Mixed Alluvial Land (Mu), and Rock Land (Ro), are listed on the soils map. These are bedrock types, and therefore soils information does not apply.



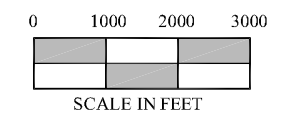
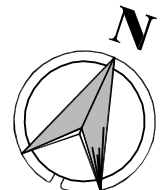
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# EMIGRATION CANYON TOWNSHIP PROPERTY OWNERSHIP

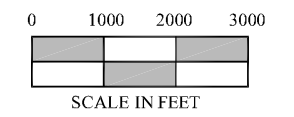
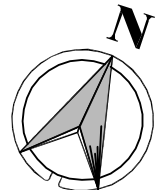
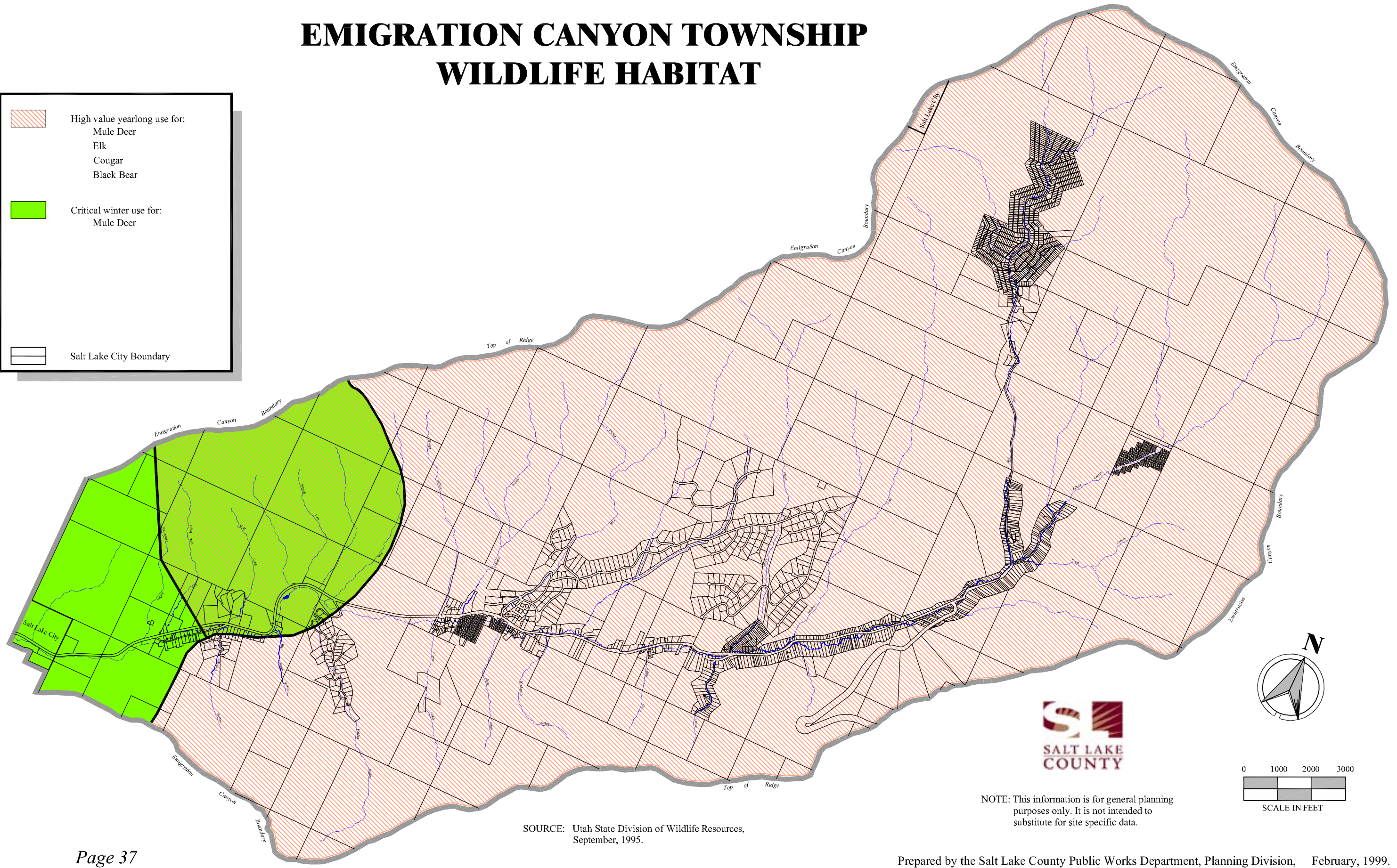
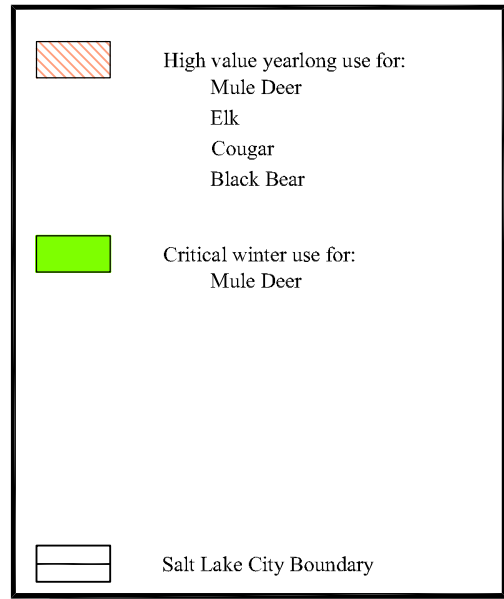


SOURCE: Salt Lake County Recorder, Property Plats  
 Salt Lake County Assessor,  
 United States Forest Service,  
 Salt Lake City Corporation.

NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.



# EMIGRATION CANYON TOWNSHIP WILDLIFE HABITAT

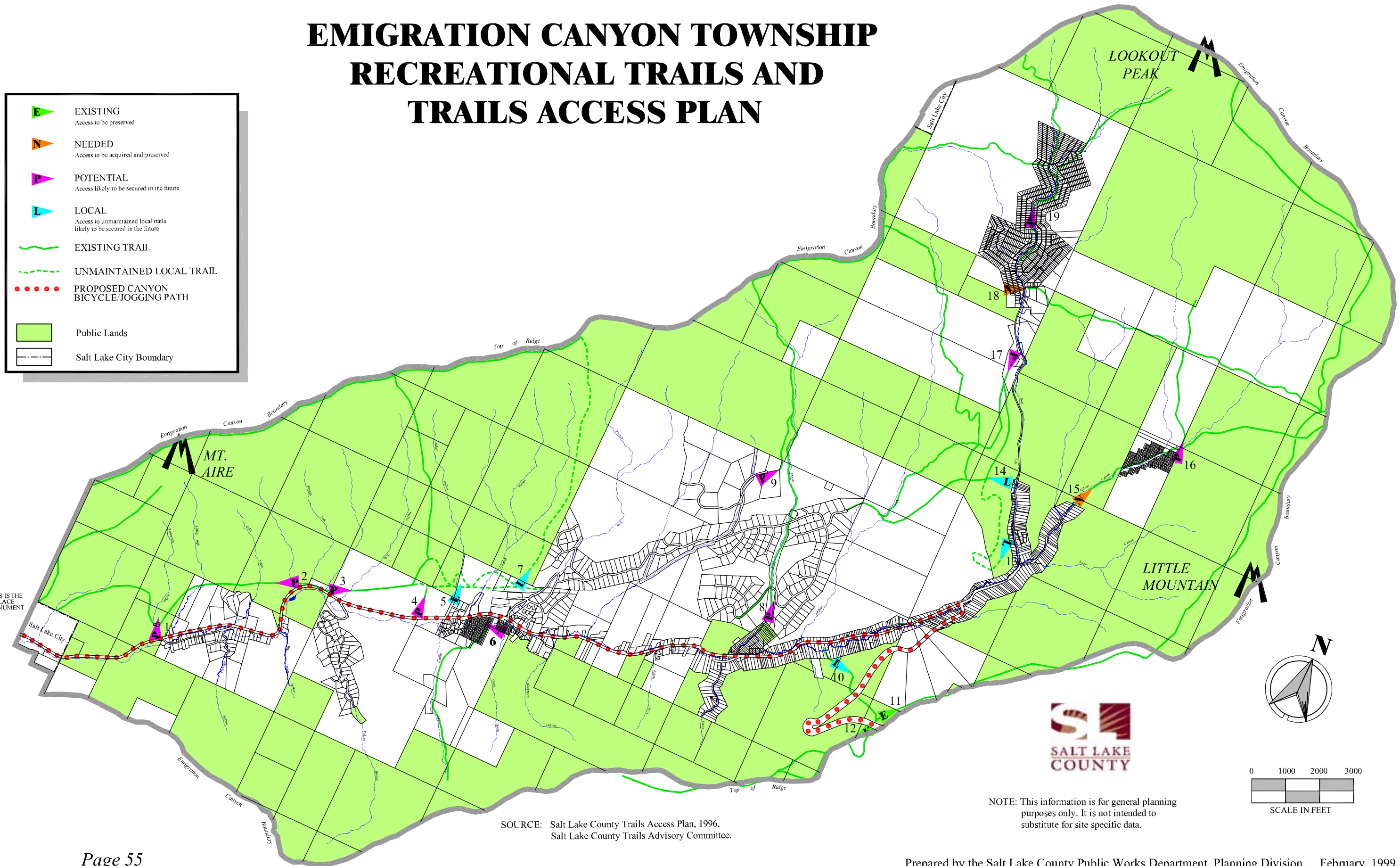


NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.

SOURCE: Utah State Division of Wildlife Resources, September, 1995.

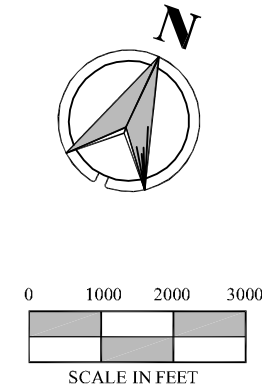
# EMIGRATION CANYON TOWNSHIP RECREATIONAL TRAILS AND TRAILS ACCESS PLAN

	<b>EXISTING</b> Access to be preserved
	<b>NEEDED</b> Access to be acquired and preserved
	<b>POTENTIAL</b> Access likely to be secured in the future
	<b>LOCAL</b> Access to unmaintained local trails likely to be secured in the future
	<b>EXISTING TRAIL</b>
	<b>UNMAINTAINED LOCAL TRAIL</b>
	<b>PROPOSED CANYON BICYCLE/JOGGING PATH</b>
	<b>Public Lands</b>
	<b>Salt Lake City Boundary</b>




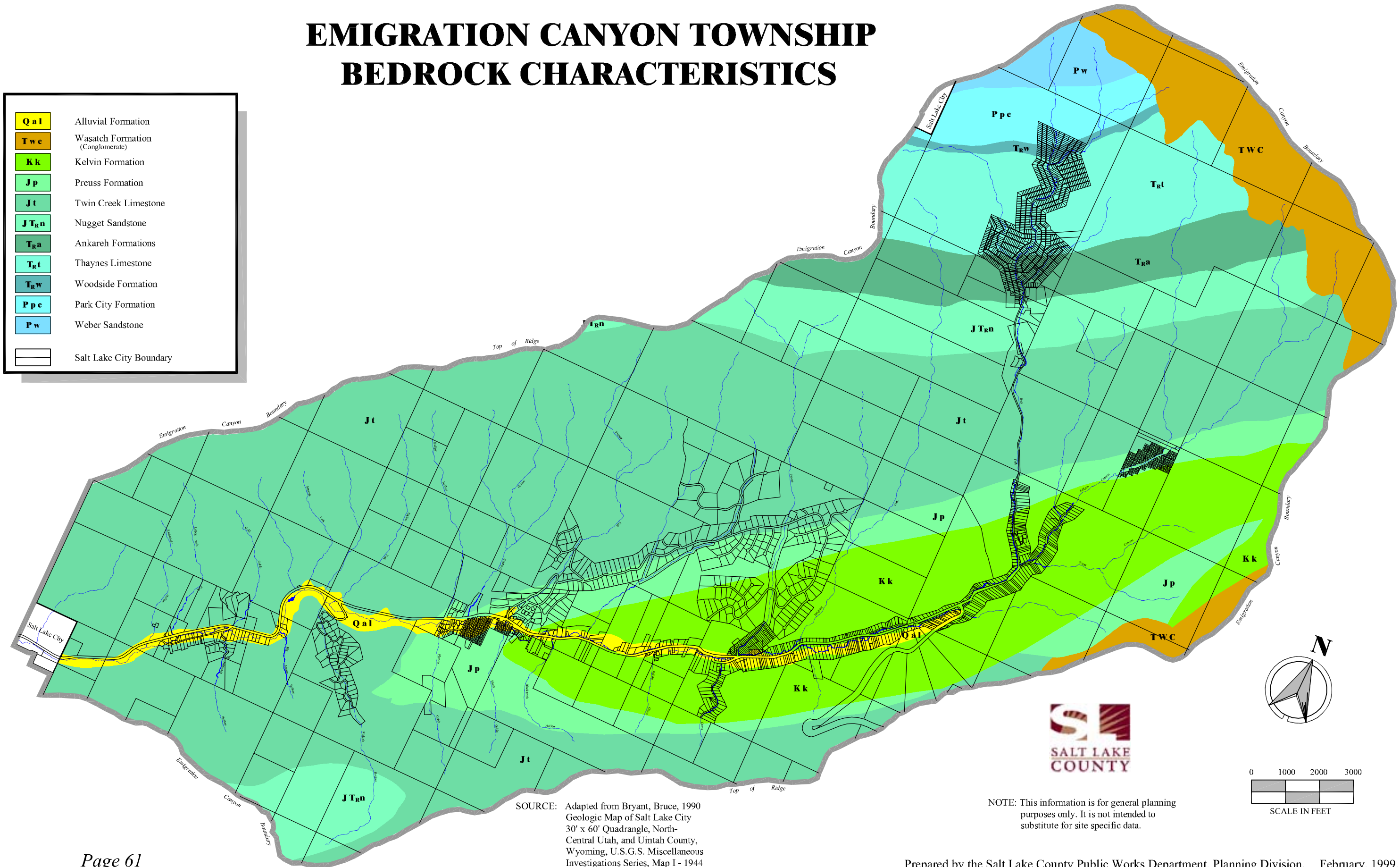
SOURCE: Salt Lake County Trails Access Plan, 1996,  
Salt Lake County Trails Advisory Committee.

NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.



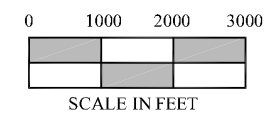
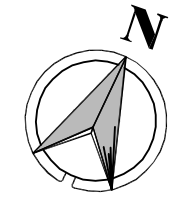
# EMIGRATION CANYON TOWNSHIP BEDROCK CHARACTERISTICS

<b>Q a l</b>	Alluvial Formation
<b>T w c</b>	Wasatch Formation (Conglomerate)
<b>K k</b>	Kelvin Formation
<b>J p</b>	Preuss Formation
<b>J t</b>	Twin Creek Limestone
<b>J T r n</b>	Nugget Sandstone
<b>T r a</b>	Ankareh Formations
<b>T r t</b>	Thaynes Limestone
<b>T r w</b>	Woodside Formation
<b>P p c</b>	Park City Formation
<b>P w</b>	Weber Sandstone
	Salt Lake City Boundary

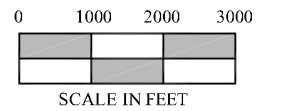
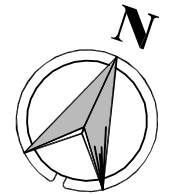
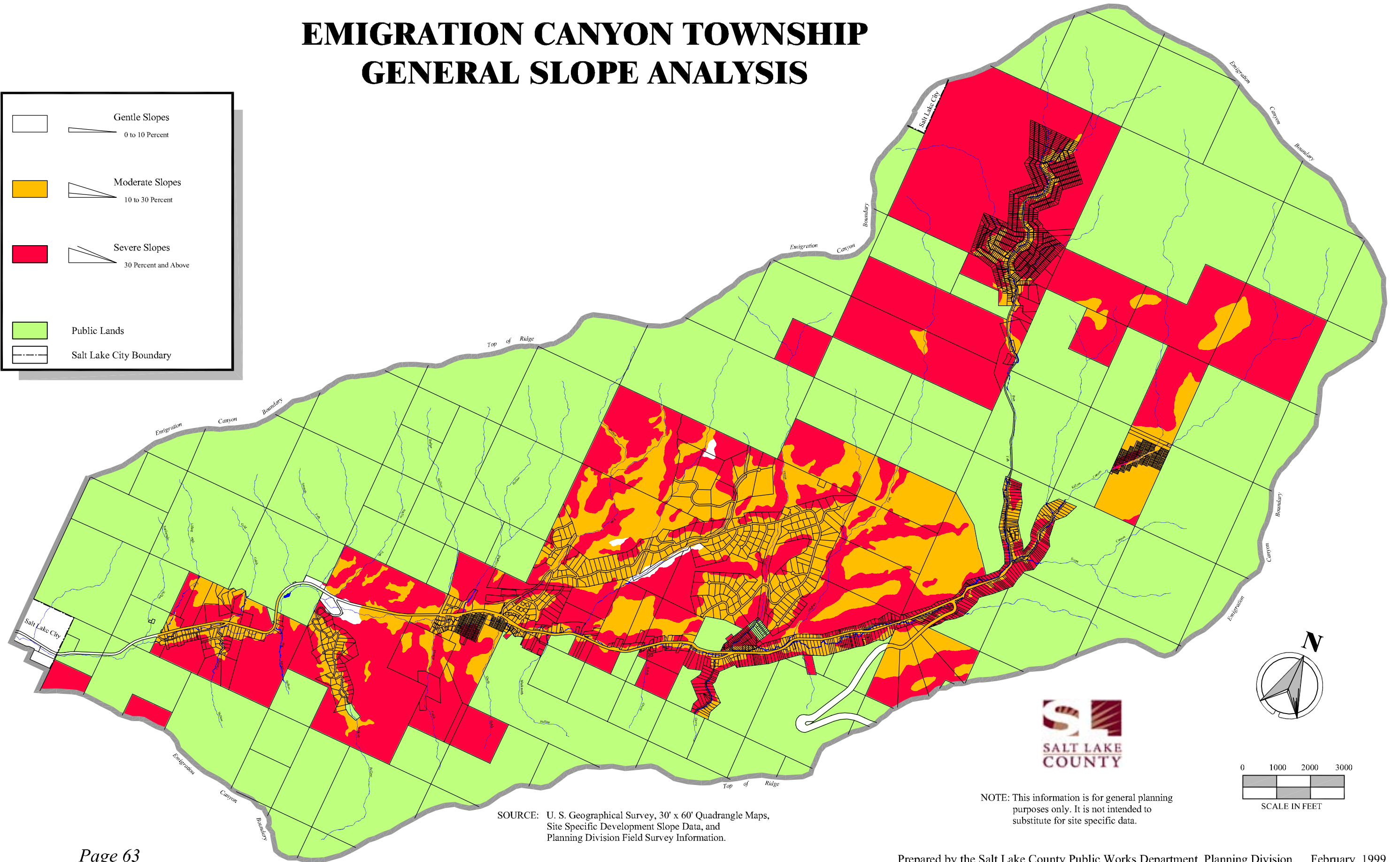
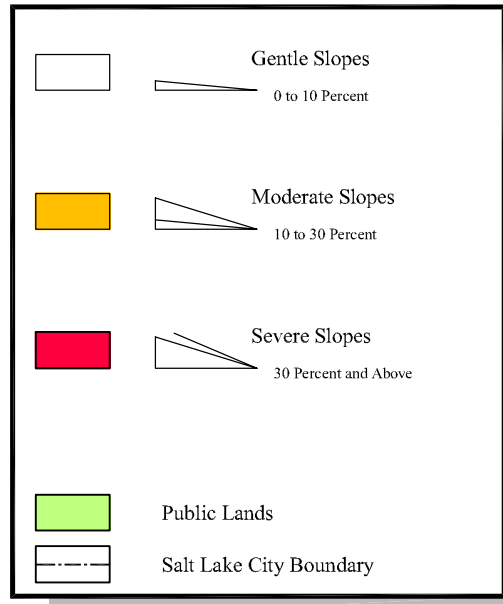


SOURCE: Adapted from Bryant, Bruce, 1990 Geologic Map of Salt Lake City 30' x 60' Quadrangle, North-Central Utah, and Uintah County, Wyoming, U.S.G.S. Miscellaneous Investigations Series, Map I - 1944

NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.







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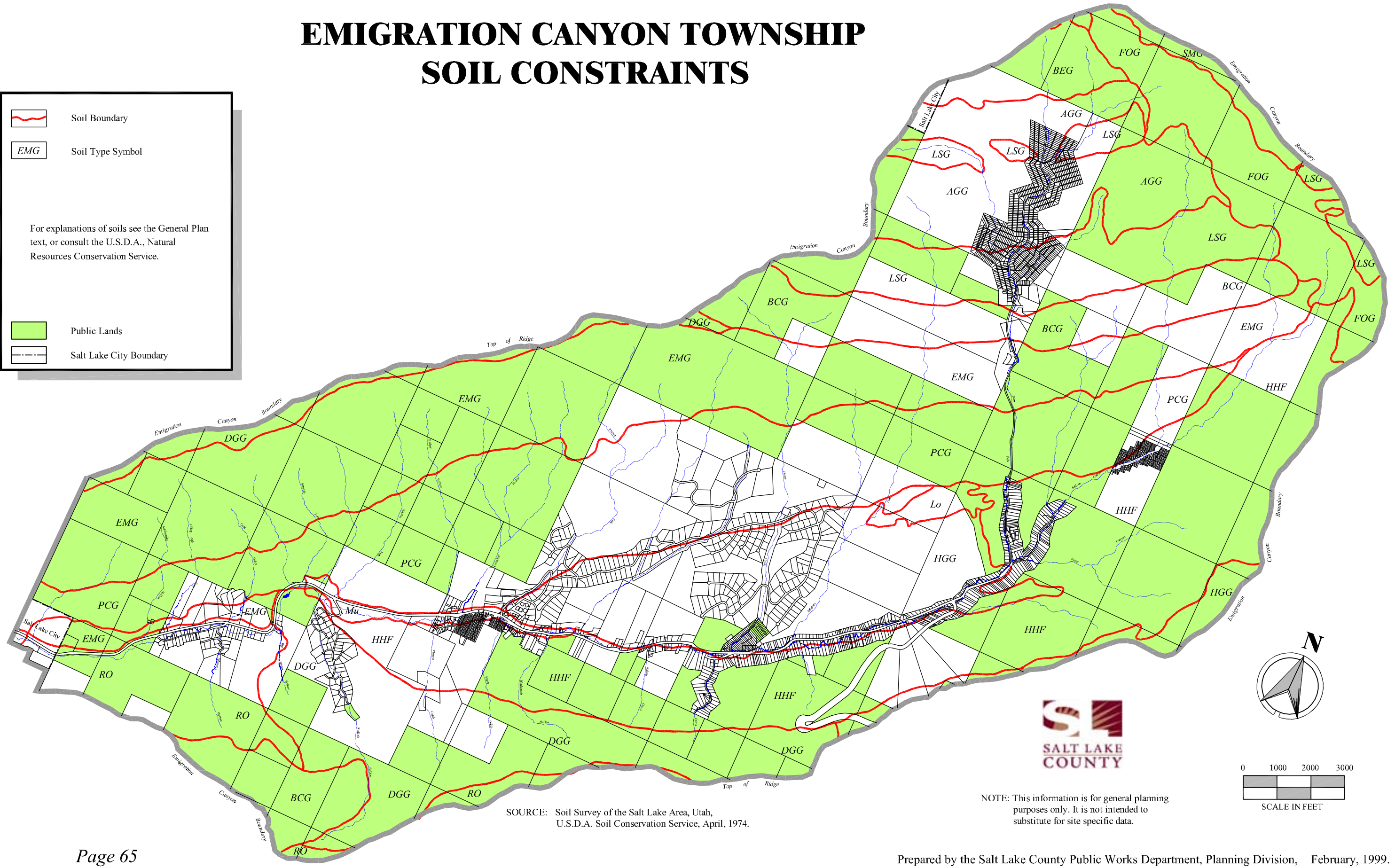


SOURCE: U. S. Geographical Survey, 30' x 60' Quadrangle Maps, Site Specific Development Slope Data, and Planning Division Field Survey Information.

NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.

# EMIGRATION CANYON TOWNSHIP SOIL CONSTRAINTS

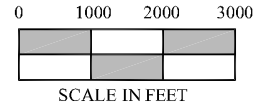
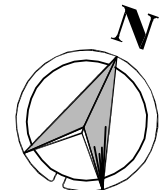
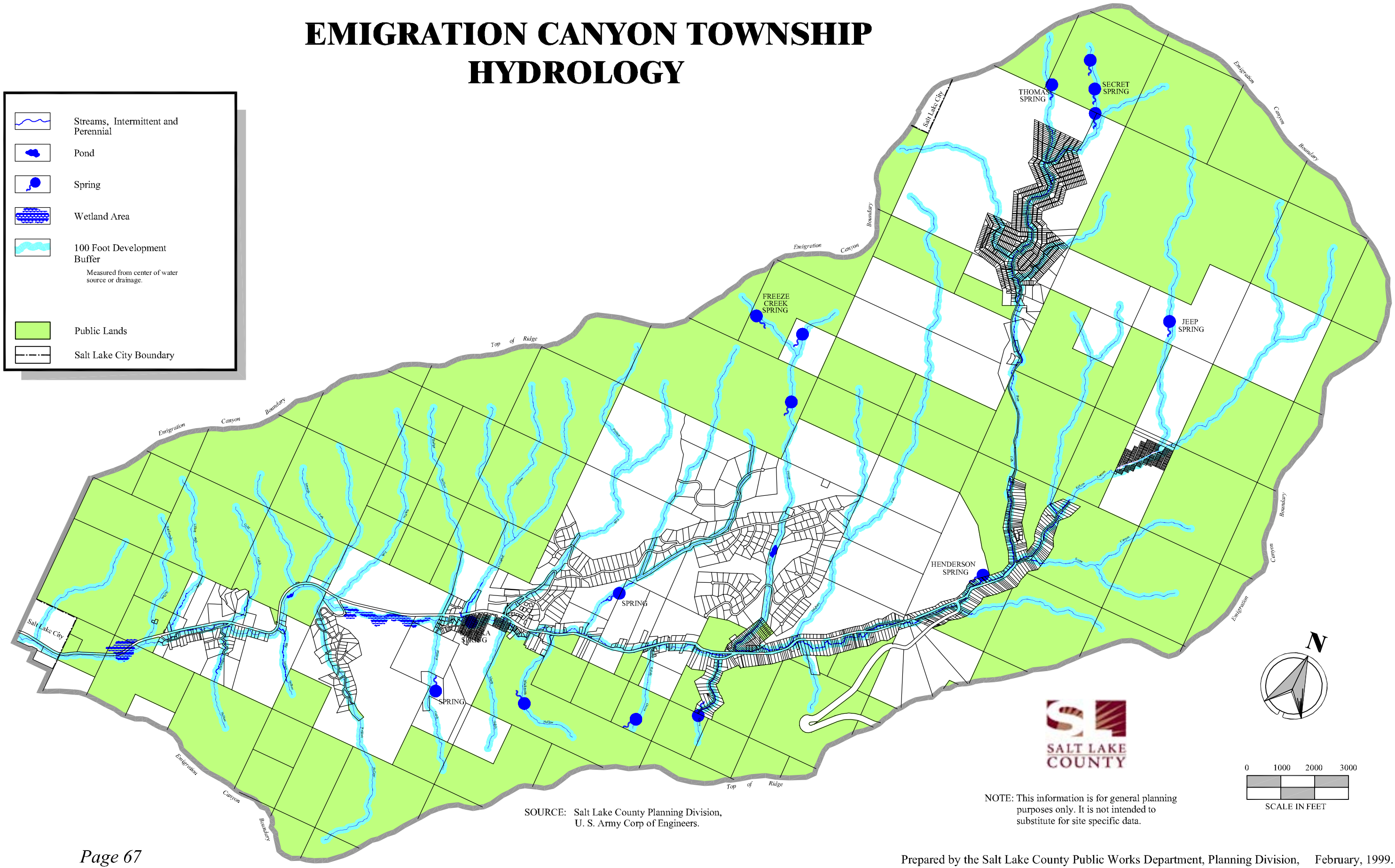
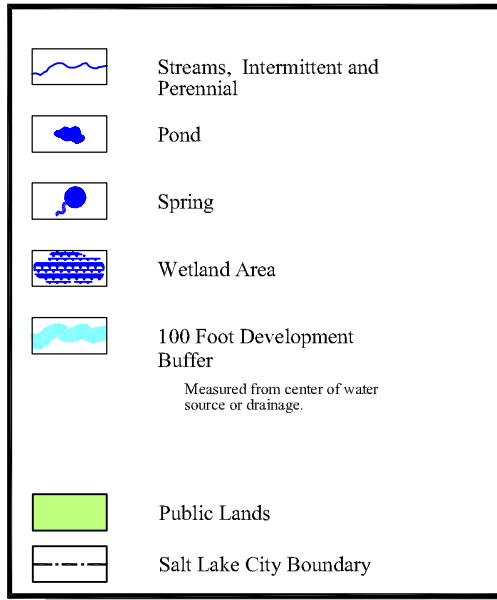
 Soil Boundary  
 Soil Type Symbol  
  
 For explanations of soils see the General Plan text, or consult the U.S.D.A., Natural Resources Conservation Service.  
  
 Public Lands  
 Salt Lake City Boundary



SOURCE: Soil Survey of the Salt Lake Area, Utah,  
U.S.D.A. Soil Conservation Service, April, 1974.

NOTE: This information is for general planning purposes only. It is not intended to substitute for site specific data.

# EMIGRATION CANYON TOWNSHIP HYDROLOGY






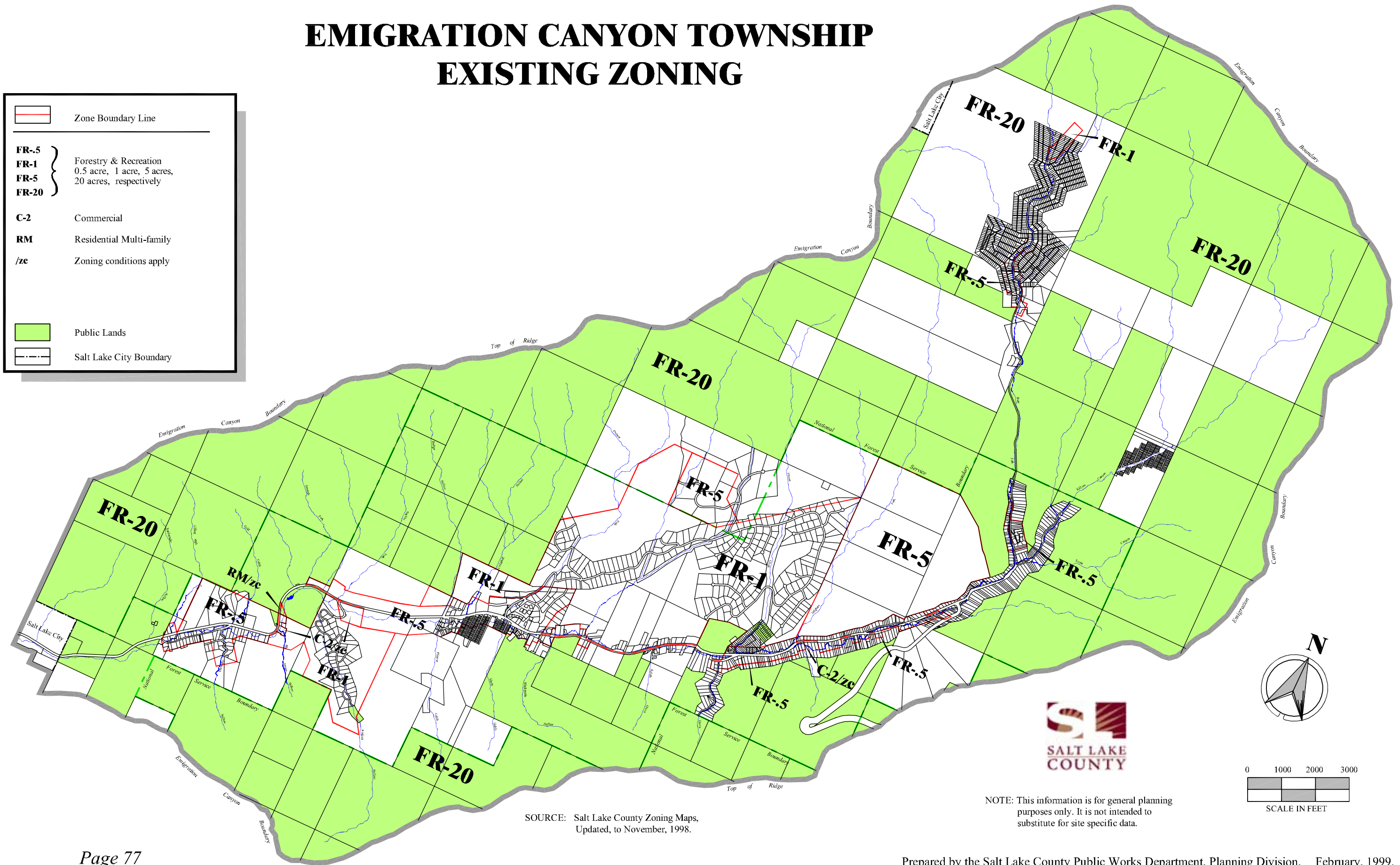
SOURCE: Salt Lake County Planning Division,  
U. S. Army Corp of Engineers.

NOTE: This information is for general planning  
purposes only. It is not intended to  
substitute for site specific data.



# EMIGRATION CANYON TOWNSHIP EXISTING ZONING

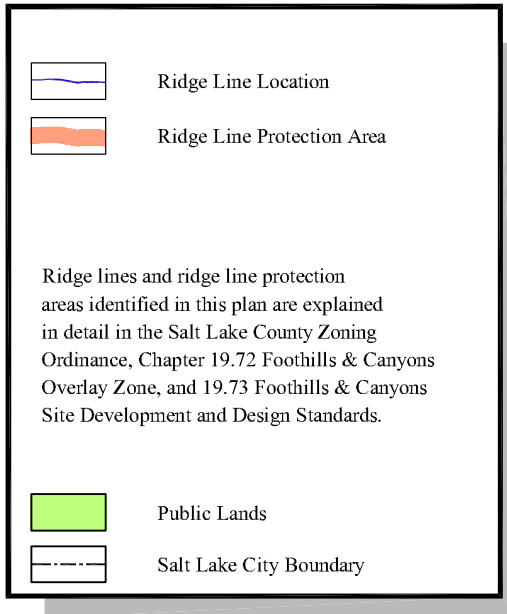
	Zone Boundary Line	
<b>FR-.5</b> <b>FR-1</b> <b>FR-5</b> <b>FR-20</b>	Forestry & Recreation 0.5 acre, 1 acre, 5 acres, 20 acres, respectively	
<b>C-2</b>		Commercial
<b>RM</b>		Residential Multi-family
<b>/zc</b>		Zoning conditions apply
	Public Lands	
	Salt Lake City Boundary	



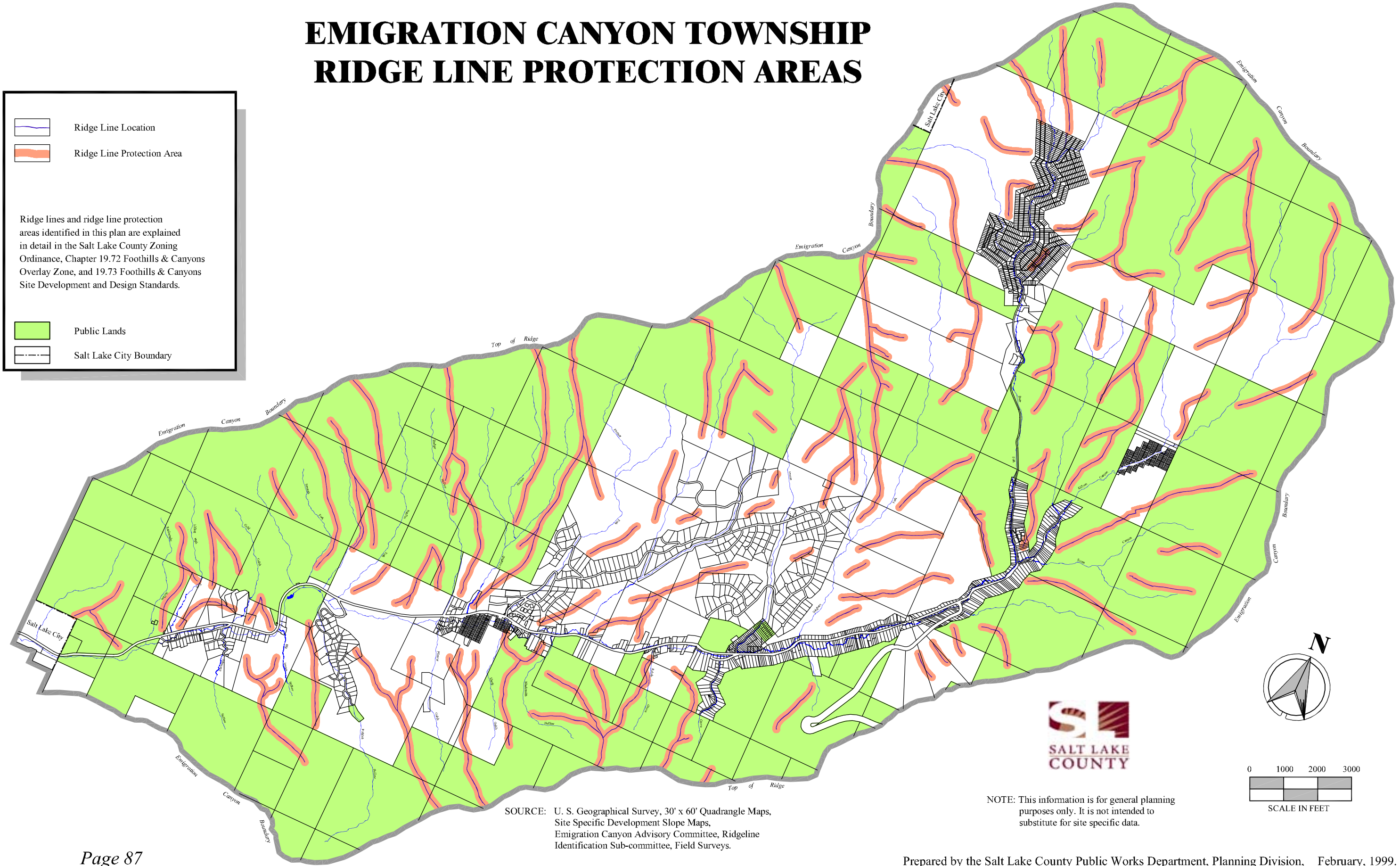
SOURCE: Salt Lake County Zoning Maps,  
Updated, to November, 1998.

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substitute for site specific data.

# EMIGRATION CANYON TOWNSHIP RIDGE LINE PROTECTION AREAS



Ridge lines and ridge line protection areas identified in this plan are explained in detail in the Salt Lake County Zoning Ordinance, Chapter 19.72 Foothills & Canyons Overlay Zone, and 19.73 Foothills & Canyons Site Development and Design Standards.



SOURCE: U. S. Geographical Survey, 30' x 60' Quadrangle Maps, Site Specific Development Slope Maps, Emigration Canyon Advisory Committee, Ridgeline Identification Sub-committee, Field Surveys.

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