

EMIGRATION CANYON

M E T R O T O W N S H I P

GENERAL PLAN 2022



ACKNOWLEDGMENTS

GENERAL PLAN STEERING COMMITTEE

ROBERT PINON (*CHAIR*)
ANDREW WALLACE (*VICE CHAIR*)
DALE BERRETH
STEVE BORST
PAUL BROWN
TIM HARPST
WILLY STOKMAN
BILL TOBEY

PLANNING COMMISSION

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DALE BERRETH
TIM HARPST
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NICOLE WATT (*COUNCIL CLERK*)

GREATER SALT LAKE MUNICIPAL SERVICES DISTRICT

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BRIAN HARTSELL (*ASSOCIATE GENERAL MANAGER*)
LUPITA MCCLENNING (*DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES*)
JIM McNULTY (*FORMER - PLANNING MANAGER*)
WENDY GURR (*PLANNING COORDINATOR*)
KATE DAVIES (*FORMER - SENIOR LONG RANGE PLANNER*)
KAYLA MAULDIN (*CURRENT - SENIOR LONG RANGE PLANNER*)
MATTHEW STARLEY (*LONG RANGE PLANNER*)
ALEX RUDOWSKI (*SENIOR GIS ANALYST*)
TRAVIS HAIR (*FORMER - PLANNER II*)
MARIDENE ALEXANDER (*COMMUNICATIONS MANAGER*)
MELISSA ANDERSON (*PLANNING MANAGER*)
JIM NAKAMURA (*PLANNER II*)
ERIN O'KELLEY (*LONG RANGE PLANNER*)
AUNDERS HART (*FORMER - LONG RANGE PLANNING INTERN*)

OTHER CONTRIBUTORS

TODD ANDERSEN (*FORMER - MUNICIPAL ECONOMIC DEVELOPMENT
COORDINATOR, SALT LAKE COUNTY*)
ALL PARTICIPATING MEMBERS OF THE PUBLIC



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Cover Photo: Freeze Creek Trail. Photo Courtesy of Catherine Harris.

EXECUTIVE SUMMARY

Overview:

This **Emigration Canyon 2022 General Plan** is the first general plan for Emigration Canyon since the Municipality incorporated as a Metro Township in 2017.

The Plan synthesizes data and public feedback to assess current conditions, formulate a future vision, and prepare a work program for navigating forward from today.

The Plan includes contextual information about Emigration Canyon, the planning process and public engagement, methods of data collection and analysis, five elements (Land Use, Transportation and Mobility, Economic Development, Environment, and Resilience and Infrastructure) and a work program specific to progressing actions on each element.

Existing Conditions:

Emigration Metro Township lies within Emigration Canyon, which comprises approximately nineteen square miles of land in Utah's Wasatch Mountain Range; the area is characterized by a dry, four season climate and semiarid rolling mountains.

The Municipality shares a border with Salt Lake City to the west.

Emigration Canyon Road is the only arterial

road in the township. It runs approximately 7.8 miles from Salt Lake City's Hogle Zoo to UT-65, which also connects to US-80.

The 2020 Decennial Census reports Emigration Canyon Metro Township's total population as 1,466 residents. The population of the Canyon has been increasing since 2000 at a rate over twice that of Salt Lake County, largely due to construction of homes in the Emigration Oaks subdivision, which is now mostly built-out.

Despite increases in housing within the Metro Township, the area is characterized by low population densities and a vast amount of open space, with approximately 68 percent of the land in the Municipality devoted to this use. Many environmental constraints, such as slope and water quality and quantity, limit development in the Canyon.

The current population represents an older, highly educated and wealthy demographic, with a median age of 47.7 and over 92 percent of adults age 25 and over having at least some college training.

The median household income for the Canyon in 2020 is estimated to be \$174,625, nearly twice the median income of Salt Lake County.

The population of Emigration Canyon is predominantly White, Non-Hispanic.

Approximately 15 businesses that provide employment for 173 employees are based in Emigration Canyon, but the vast majority of the work force commute out of the Canyon to work.

Strengths and Challenges:

The community of Emigration Canyon is generally well educated and affluent, two characteristics that can provide an important foundation to build upon when it comes to advancing the goals and objectives outlined in this Plan.

Another strength is the substantial amount of open space and public lands designated in the Canyon. Approximately 72% of Canyon lands are publicly owned, making it a veritable wonderland for wildlife and outdoor enthusiasts alike.

The close proximity of Emigration Canyon to downtown Salt Lake City is both a strength and a challenge, because while it enables Canyon residents to easily commute to work, it also means the Canyon is vulnerable to overuse by visitors.

Other substantial challenges for the community are also related to geography. How to consider and address development pressures, water quality and quantity issues, and the risk of wildfires and other hazards

associated with the Wildland-Urban Interface are among key concerns for residents of the area.

Moving Forward:

This Plan addresses these challenges by protecting and leveraging existing assets, planning future development around unique ‘Character Areas’, integrating local and regional planning efforts, seeking to establish strategic partnerships, and taking a precautionary and intergenerational approach to planning for the future.

The following vision statement was developed to guide future planning initiatives and decision-making:

- Emigration Canyon is a progressive,

family-oriented community with many opportunities for its residents to enjoy active, healthy, and modern lifestyles.

- Emigration Canyon is comprised of distinct neighborhoods with residents who are dedicated to fostering a sense of community and are actively involved in public activities.
- Emigration Canyon is a nationally recognized historic landmark and its residents embrace that heritage.
- Emigration Canyon residents enjoy and value the Canyon’s many excellent, cherished, well-maintained recreational amenities.
- Emigration Canyon residents are committed to maintaining and protecting

the Canyon’s important ecosystems and resources.

This vision statement is further supported by actions included in the Community Work Programs included with each element.

This Plan is intended to guide Emigration Canyon forward for the next five years, after which point the Plan will be re-evaluated to ensure that it continues to meet the needs of the community.

Thank you to all the elected officials, community leaders, and members of the public who contributed to this Plan!

USING THIS DOCUMENT

This General Plan is divided into seven chapters that describe the vision and a plan forward for Emigration Canyon. Together, these chapters build a foundation from which the Municipality can adopt programs and policies that support the values held by Emigration Canyon residents.

Each chapter includes an analysis of existing conditions related to that topic and a description of the community’s feedback, vision, and goals related to that topic. At the end of each chapter, a Work Program is included to provide a series of steps that the

Municipality could take in order to achieve its envisioned future. Explanations of underlying planning concepts are interspersed throughout the Plan (look for blue boxes or panels such as the one found on page 10).

Although subjects are divided into distinct chapters or elements in this General Plan, they remain tightly interwoven, so that common themes emerge across the document.

CHAPTER 1: Introduction

This chapter introduces the; “when, why, and how?” of the General Plan. It explains the need

for a General Plan, State Code Requirements, and the methodology used to prepare this Plan for Emigration Canyon.

CHAPTER 2: Land Use & Character Areas

This chapter is required by Utah State Code and addresses questions such as How is our land currently used? How are land uses changing? How should land be used in the future to meet the needs and desires of our community?

CHAPTER 3: Transportation & Mobility

This chapter is required by Utah State Code and considers street classifications, regional use and planning implications, and future transportation projects that will help to progress the needs and interests of canyon residents and visitors. Questions such as; Can residents effectively access their daily needs using the transportation system? How are our transportation patterns changing? How should we prepare for future transportation and mobility needs? are addressed.

CHAPTER 4: Economic Development Considerations

This chapter is not required by Utah State Code but is important for ensuring the

future success and financial sustainability of the Municipality. The chapter addresses questions such as What is the state of the local economy? What regional trends are impacting our market? What kinds of economic opportunities would be appropriate to encourage in the area?

CHAPTER 5: Environment

This chapter is not required by Utah State Code but is needed to guide decision making to ensure that environmental protections are in place and a high environmental quality is maintained in the Canyon today, and for future generations.

CHAPTER 6: Resilience & Infrastructure

This chapter is not required by Utah State Code but is important for ensuring the preparedness and adaptive capacity of the Municipality. The chapter addresses questions such as How cohesive is the Emigration Canyon community? What hazards are the greatest risk to the area? How can we become more resilient to hazards and changes?

CHAPTER 7: Community Work Program

This chapter summarizes the work plans (including goals, objectives, and actions) from the previous chapters.

TERMS DEFINITIONS

This General Plan is intended to be actionable. Towards that end, the Plan breaks down high-level priorities and strategies into implementable pieces. The following terms and definitions are important to understand in using the document for implementation:

Vision: A description of the “preferred future”; a statement that describes how the future will look if the issues that are important to the community are perfectly addressed.

Values: Beliefs about desirable states or modes of conduct that guide behavior and prioritization of goals and objectives.

Goals: Broad qualitative statements about what the organization hopes to achieve by following the General Plan.

Objectives: Statements regarding how improvements will take place and therefore tend to be quantitative in nature. Usually begin with something akin to “increase” or “decrease.”

Actions: An approach or method for attaining objectives and resolving specific issues. Generally start with a verb.

Policies: Statements that inform elected officials and decision-makers. Should provide

a path towards achieving goals.

Programs: Intentional, structured and supported efforts to progress the attainment of goals.

Metric: A system or standard of measurement or evaluation that can be used to assess progress toward meeting goals.

A glossary is also included in Appendix A of this document, to provide readers with definitions of key terms used in the Plan.

ABBREVIATIONS & ACRONYMS

AADT – Annual Average Daily Traffic

AASHTO – American Association of State Highway and Transportation Officials

APAE – Achieve, Preserve, Avoid, and Eliminate analysis

BEAR – Business Expansion and Retention programs

BWA – Balsam Woolly Adelgid

Camp K – Camp Kostopulos/Kostopulos Dream Foundation

CARES Act – Coronavirus Aid, Relief, and Economic Security

ECDC – Emigration Canyon Community Council

EC Metro – Emigration Canyon Metro Township Council

COVID-19 – Novel Coronavirus

DEQ – Utah Department of Environmental Quality’s

DNR – Utah Department of Natural Resources

EAS – National Emergency Alert System

EID – Emigration Canyon Improvement District

E. coli – Escherichia coli

ECRIC – Emigration Canyon Roadway Improvement Committee

Emigration Canyon – Emigration Canyon Metro Township

Engineering – Salt Lake County Public Works Engineering Department

EPA – United States Environmental Protection Agency

FCOZ – Foothills and Canyons Overlay Zone

FEMA – Federal Emergency Management Agency

GPSC – Emigration Canyon Metro Township General Plan Steering Committee

HOA – Homeowners Association

IDA – International Dark-Sky Association

LRP – Long Range Planning Team (MSD, PDS)

MPO – Metropolitan Planning Organization

MSD – Greater Salt Lake Municipal Services District

the Municipality – Emigration Canyon Metro Township

NACTO – National Association of City Transportation Officials

NOAA – National Oceanic and Atmospheric Administration

PC – Emigration Canyon Metro Township Planning Commission

PDS – Planning and Development Services Department (MSD)

SLC – Salt Lake City

SLCDPU – Salt Lake City Department of Public Utilities

SLCo – Salt Lake County

SWOT – Strengths, Weaknesses, Opportunities and Threats Analysis

TMDL – Total Maximum Daily Load

UDOT – Utah Department of Transportation

UFA – Unified Fire Authority

UoL – Utah Open Lands Conservation Association

UPD – Unified Police Department

USDA – United States Department of Agriculture

USGS – United States Geological Survey

USFS – United States Forest Service

UTA – Utah Transit Authority

WFRC – Wasatch Front Regional Council

WUI – Wildland-Urban Interface





Fall mountain view. Photo Courtesy of Maridene Alexander.

CHAPTER 1: INTRODUCTION

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What is a General Plan?

A General Plan is an advisory policy document that outlines the long-range vision, priorities, and intentions for a place such as a municipality or a city. Through the planning process, existing conditions are examined, desired future conditions are established, and a path is laid out to bring a community from its present state to its envisioned future. Decision-makers,

residents, and other stakeholders can and should use the General Plan to coordinate and implement decisions about land use, infrastructure, parks, recreation and open space, city services, housing supply and affordability, and other public resources. As such, the General Plan is a living, fluid document that should be regularly reviewed and updated.

Little Mountain Summit Sign. Photo Courtesy of Maridene Alexander.

1.1 GENERAL PLAN OVERVIEW

1.1.1 Why Make a General Plan?

Municipalities make plans for many reasons. The main purpose of a General Plan is to aid a community in defining and achieving its desired future. More specifically, municipalities make General Plans because:

Plans strengthen community autonomy; by establishing a community vision, priorities, and goals, communities avoid change “just happening” to them.

Plans enhance decision-making: syncing data, local knowledge, and on-the-ground conditions enable decisions to be comprehensively informed.

With plans, communities can bolster strengths, achieve goals, and minimize and re-solve problems and threats.

Through the establishment of common goals, the planning process brings together various community members.

Utah State Code 10-9a-401 requires each

municipality in Utah to prepare a General Plan.

1.1.2 Planning Authority

Emigration Canyon Metro Township (also referred to as Emigration Canyon, the Canyon, or the Municipality throughout this Plan) became an independent municipality with its own governing authority by a vote of the residents of Emigration Canyon in 2015. Incorporation took place in 2017. Emigration Canyon boundaries and key points of interest are shown in Figure 1.1.

The Municipality is governed by an elected legislative council, the Emigration Canyon Metro Township Council (EC Metro). This group has the authority to enact laws and ordinances to carry out its responsibilities such as land use and development regulations (zoning) as long as these laws and ordinances are consistent with the Utah Municipal Code and other state statutes. Emigration Canyon has all the municipal powers allocated by the Utah Municipal Code with the exception of

certain powers of taxation. The Municipality does not have the power to enact a property tax or municipal energy taxes. One member of the EC Metro is selected by the others to be the Mayor. The Mayor is the chief executive officer of the Municipality.

Emigration Canyon is a member of the Greater Salt Lake Municipal Services District (MSD). The MSD provides the Municipality with planning and development services as part of its membership agreement. The EC Metro appoints a Planning Commission (PC) and a General Plan Steering Committee (GPSC) to work with MSD Long Range Planners on the development of Emigration Canyon’s General Plan. The GPSC and PC make recommendations to the EC Metro regarding the adoption and amendment of the General Plan. The EC Metro can adopt, reject, or revise a recommended General Plan. See Figure 1.2 for an overview of the general planning process and Figure 1.3 for a detailed timeline.

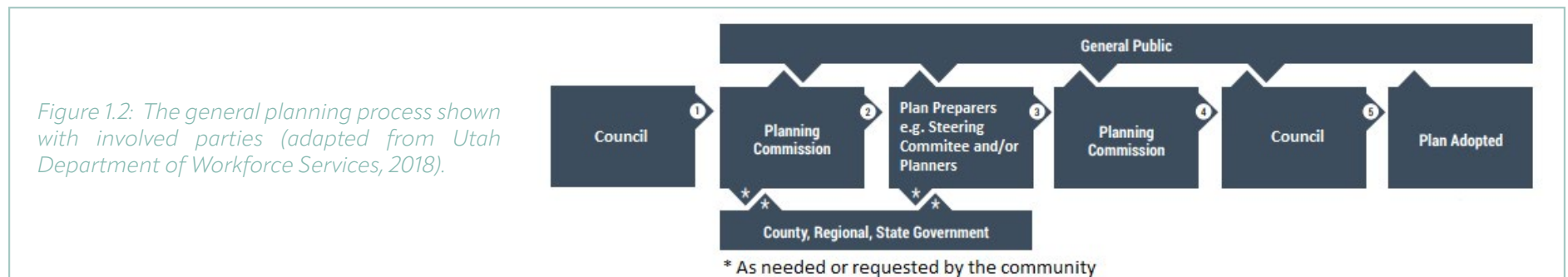


Figure 1.2: The general planning process shown with involved parties (adapted from Utah Department of Workforce Services, 2018).



Is a General Plan Required?

Utah State Code Section 10-9α-401 requires every county and municipality to have a long-range general plan in order to provide for the health, safety, and welfare of each community and its residents. Section 10-9α-403 of the code outlines the components that can be included in a general plan. Land use and transportation elements are required for all counties and municipalities. Many additional elements are also frequently included in general plans. Such sections may cover housing, economic development, infrastructure,

natural hazards and resilience, or the environment.

Land Use: “The General Plan shall designate the long-term goals and the proposed extent, general distribution, and location of land for housing, business, industry, agriculture, recreation, education, public buildings and grounds, open space, and other categories of public and private uses of land as appropriate; and may include a statement of the projections for and standards of population density and building intensity recommended for the

various land use categories covered by the plan.”

Transportation: “The General Plan shall provide a transportation and traffic circulation element consisting of the general location and extent of existing and proposed freeways, arterial and collector streets, mass transit, and any other modes of transportation that the planning commission considers appropriate, all correlated with the population projections and the proposed land use element of the general plan.”



Turning Goals Into Actions

Goals are important because they guide us towards implementing the community vision. However, goals on their own are not enough: while they indicate where a community aims to be, they do not explain how a community can get there, or how progress will be measured along the way.

This plan is meant to be useful for elected and appointed officials, property owners, developers, and other community members; as such, it needs to be implementable.

Objectives clarify the direction of progress that is expected in order to

move towards goal attainment; words such as “increase” or “decrease” will commonly be used to lay out the Plan objectives.

Actions are the method through which community goals can be realized. Actions lay out a path from today towards the vision for tomorrow. In this plan, the Work Program lists the actions necessary for the Emigration Canyon community to take in order to accomplish the goals and make progress towards the community vision. Actions range from forming partnerships, to collaborating on tasks, to applying for

grants, to conducting public outreach, and much more.

The Work Program also answers questions such as who is responsible for the action, when does the action need to take place, and approximately how much will the action cost; such details make the Work Program clear and more achievable. After the General Plan is adopted, the responsible parties named in the Work Program can look to the Work Program to guide their next steps. The Work Program can also be used to review and evaluate progress toward achieving the community goals and implementing the community vision.

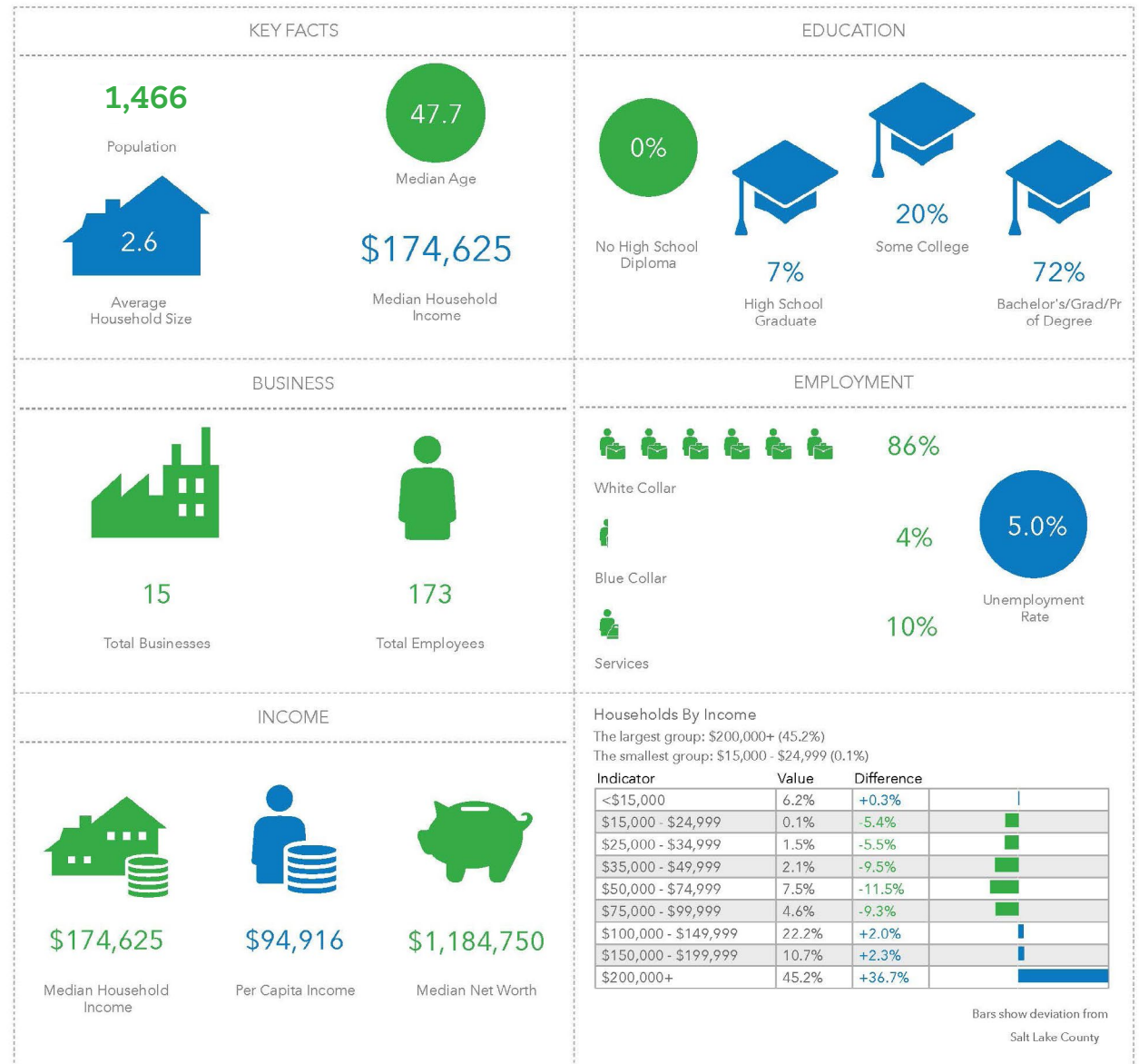
1.2 EMIGRATION CANYON PROFILE

Emigration Canyon comprises approximately 19 square miles of land in Utah’s Wasatch Mountain Range. The Municipality shares a border with Salt Lake City to the West. Emigration Canyon Road is the only arterial road in the Municipality. It runs approximately 7.8 miles from Salt Lake City’s Hogle Zoo to UT-65, which also connects to I-80 (See Figure 1.1).

The population of Emigration Canyon in 2020 is estimated to be 1,466 (Figure 1.3; Esri, 2020). The area also serves as an important recreational destination for bikers, hikers, and wildlife viewers from neighboring municipalities in the Salt Lake Valley.

1.2.1 Emigration Canyon at a Glance

The 2020 population estimate for Emigration Canyon is 1,466 (Figure 1.3; Esri, 2020). The population of the Canyon has been increasing since 2000 at a rate over twice that of Salt Lake County but has shown since of stabilization in recent years. This trend is largely due to construction of homes in the Emigration Oaks subdivision. The population represents an older demographic, with a median age of 47.7. This older demographic is likely to have implications for long-range planning in the Metro Township, as more than 24 percent of residents are expected to be over 65 by the year 2024. During that same time period, the population of children



This infographic contains data provided by Esri, Esri and Infogroup. The vintage of the data is 2020, 2025.

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Figure 1.3: Key statistics for Emigration Canyon (Esri, 2020).



under the age of 18 is expected to increase to approximately 22 percent. Emigration Canyon is a highly educated and affluent population. Over 92 percent of adults age 25 and over have had at least some college training, and the median household income for the Canyon in 2020 is estimated to be \$174,625, nearly twice the median income of Salt Lake County. Household size has been decreasing in the Township, with the average household size estimated at 2.6 in 2020. The population of Emigration Canyon is predominantly White, Non-Hispanic. In upcoming years, the percentage of residents reporting that they belong to a minority race or ethnicity is expected to increase, but not at the rate of increase expected in Salt Lake County at large. Approximately 15 businesses that provide employment for 173 employees are based in Emigration Canyon. Historically, the vast majority of the work force have commuted out of the Canyon to work. Recent “Remote Work” trends may reduce the percentage of persons commuting out of the canyon on a regular basis to accommodate employment requirements.

1.2.2 Environmental Conditions

Emigration Canyon is located within the Semiarid Foothills ecoregion demarcated by the United States Department of Agriculture (USGS, 2000). This area is characterized by a dry, four season climate and semiarid rolling mountains. Emigration Canyon’s environmental conditions and ecological systems should be given careful consideration when any development is proposed.

Emigration Canyon’s climate, like Salt Lake County and the rest of the southwestern United States, is very dry. Emigration Canyon has moderately hot summers and cold winters. July is typically the hottest time of the year, with an average high of around 90 degrees; the average low in January is approximately 22 degrees. The average annual precipitation is around 23 inches (Best Places, 2020).

Elevations in Emigration Canyon range from about 5,100 feet near the mouth of the canyon to just over 8,900 feet at the summit of Lookout Peak along the northern township boundary. Much of the canyon is dominated by lands where slopes exceed 30 percent.

Emigration Canyon has varied topography and a variety of vegetation zones which correlate to slope, elevation and soil types. The foothill communities located at the lower part of the Canyon are dominantly scrub oak of various varieties. Scrub oak is the most extensive plant community in the canyon environment. It begins in the lower foothills at about 5,000 feet and covers most of the areas up to about 7,500 feet. Streamside communities are dominated by maple, chokecherry, birch, alder, and cottonwood. Many varieties of deciduous shrubs are also found in this community. Rising in elevation, plant communities are dominated by aspen, fir, and spruce. At higher elevations, the most abundant trees are the Douglas Fir, Englemann Spruce and Alpine Fir. Above the timberline, at high elevation, a variety of shrubs dominate the vegetation pattern.

1.2.3 Human History

The rich history of Emigration Canyon has strongly influenced the present community. Even before Mormon pioneers trekked through Emigration Canyon on their way to settle the Salt Lake Valley, native peoples were relying on the Canyon's water supply and abundant wildlife for sustenance. Although there is little evidence that these early populations lived permanently in Emigration Canyon, it is believed by researchers that both Ute and Shoshone tribes hunted the Canyon's forest and fished the Emigration Creek, once heavily populated with trout (Carlstrom & Furse, 2019). Residents have even discovered arrowheads buried on their properties (ibid).

Although first discovered and cultivated by early native tribes, Emigration Canyon derives its name from the many pioneers who passed through it as they 'emigrated' to the Salt Lake Valley and beyond. The Donner-Reed party was one of the first and most notable early groups of emigrants, traveling the canyon in 1846, as a part of their ill-fated

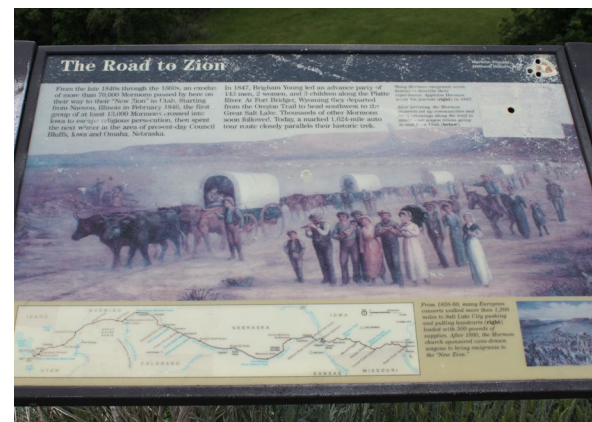
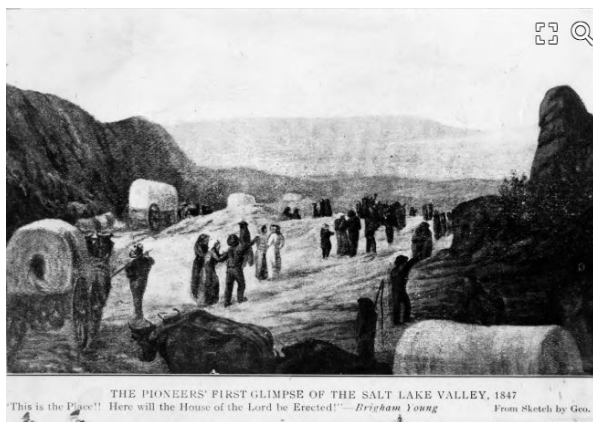
journey on the Hasting's Cutoff (Carlstrom & Furse, 2019). And in July of 1847, Mormon refugees from the east made their final camp in Emigration Canyon before descending into the Salt Lake Valley, the place that they would ultimately stay and make their home (ibid). As they established their new civilization in the valley, the Canyon became a path for future travelers, mail, and freight, as well as the source of timber and stone for building.

Over time, several businesses established themselves in Emigration Canyon, including the Wagener Brewery (1864-1914), Pinecrest Inn (1913-1949), and the famous Ruth's Diner (1949-Present).

These businesses took advantage of Salt Lake residents craving an escape into the cooler temperatures of the Canyon, as well as the more lenient laws that came because of their location outside of City boundaries (Carlstrom & Furse, 2019).

From 1907 to 1917, the Emigration Canyon Railroad operated between Salt Lake City and

quarries at the top of the Canyon. Although the original purpose of the rail line was to carry heavy stone from the mountain quarries down into the City for building, the advent



of Portland Cement soon made the stone industry obsolete, and the railroad began to primarily serve passengers (ibid). Residents of Salt Lake Valley could take the train from the City up into the alpine territories of the Canyon to enjoy fishing, hiking, and picnicking. Eventually, the presence of the train led to further development of the Canyon. Streetcar suburbs popped up near train stops, and the Pinecrest Inn (see Figure 2) was built near the end of the line to accommodate guests with overnight lodging, food, and entertainment (ibid). Although the Emigration Canyon



Railroad was financially unsustainable and dismantled after just ten years, the Canyon continued to thrive. The land that had been cleared for the railroad tracks provided automobile access, and residents from the surrounding valleys continued to establish summer cabins throughout the Canyon's wilderness.

Autonomy has long been a core value of the Emigration Canyon community. In 1950, the Emigration Canyon Planning District formed to represent the many interests of residents, namely water quality, litter pick-up, wilderness preservation, and maintenance of the Canyon's low cost of living (Carlstrom & Furse, 2019). Very early on, the Planning District

decided to implement a zoning structure which significantly limited opportunities for commercial development in the Canyon - an attempt to preserve the quiet and natural environment that had drawn residents to settle in the area. Attempts to expand development in the canyon have consistently met with resistance from canyon residents over the years (see Carlstrom & Furse, 2019 for several examples). Since then, the Canyon has continued to show ownership over its own planning and decision-making, and several community interest groups (e.g. Emigration Canyon Community Council, Emigration Canyon Sustainability Alliance) have formed over the years to address issues facing life in the Canyon (e.g. littering, water pollution, fire



danger, vandalism, and growth pressures). In 2017, Emigration Canyon was incorporated as a Metro Township and continues to be served by a Metro Township Council and Planning Commission.

Today, Emigration Canyon is beloved both by residents and visitors. It is frequented by hikers and bikers looking for refuge in the open lands surrounding the Salt Lake Valley. Although the environment has been altered by humans, it is still possible to see coyote, mule deer, elk, rattlesnakes, fox, porcupine, cougars, bobcats, moose, and several species of bird (Carlstrom & Furse, 2019).

Formal and informal recreational opportunities abound, including Camp Kostopulos, which has existed in Emigration Canyon since 1971 and provides recreational, educational, and personal development opportunities for persons of all abilities (Kostopulos Dream Foundation, 2019). Since 1961, Emigration Canyon has also been recognized as a National Historic Landmark, symbolizing the uniqueness of this Canyon and its importance to the surrounding Salt Lake Valley.



Photo Credits:

Page 19: Old pioneer drawing of pioneer seeing the Salt Lake Valley for the first time from Emigration Canyon. Photo Courtesy of the Utah Division of State History | Road to Zion sign. Photo Courtesy of Maridene Alexander | Donner Hill sign. Photo Courtesy of Maridene Alexander | Wagener's Imperial Beer sign, January 1913, Clipping found in Goodwin's Weekly.

Page 20: Ruth's Diner front door. Photo Courtesy of Maridene Alexander | Emigration Canyon Railroad. Photo Courtesy of the Utah Division of State History.

Page 21: Pinecrest Inn. Photo Courtesy of the Utah Division of State History | Camp Kostopulos. Photo Courtesy of the Utah Division of State History.



1.3 COMMUNITY INPUT

This General Plan was developed using a participatory approach that engaged members of the Emigration Canyon community in planning for the future of the Municipality.

Details on this process are provided in the subsections that follow. All elements of the Plan were developed with guidance and input from the Emigration Canyon Metro Township General Plan Steering Committee (GPSC), a group composed of Planning Commissioners

(PCs) and other dedicated local residents appointed by the Metro Township Council (EC Metro). Public meetings held over 18 months included 30 GPSC meetings, nine PC meetings, and ten EC Metro meetings in which general planning content, progress and direction was discussed with planning staff (Figure 1.4).

Wider public input on key elements of the Plan was also gathered from a workshop and a survey, in addition to statutory requirements

that allow for input during meetings and hearings.

A Participatory Approach to Planning

The planning process used to develop this General Plan relied on a participatory, community-engaged approach to planning and decision making. Table 1.1 highlights just a few of the benefits of engaging citizens in government decisions in this way.

Involving the public in the planning process



Transportation Planning Workshop at the Salt Lake County Government Center. Photo courtesy of MSD Long-Range Planning Team.

means that residents are able to share their unique community-based knowledge with planners, local leaders, and elected officials. At the same time, residents can learn about the planning and decision-making opportunities and challenges facing their community from the perspective of experts and leaders.

Through participatory processes, decisions can come to better reflect residents' values and lived experiences. Robust community engagement also gives the public ownership over projects and decisions. When community members feel that their voices were represented in a decision, they are more

likely to become active advocates for and participants in decision outcomes.

1.3.1 Public Meetings

All general planning meetings held by the GPSC, PC, and EC Metro were open to the public (in-person or virtually) and were noticed in accordance with public meeting requirements. Several GPSC meetings focused entirely on developing and reviewing content for the elements required by State code (transportation and land use). Additionally, experts were occasionally invited to present at GPSC meetings on a topic determined by the

group to be of particular importance, interest, or concern (e.g. transportation, water). The PC and EC Metro also set aside time to review and comment on the required elements during public meetings prior to adoption. All elements were discussed at length by the GPSC and reviewed and commented on by the PC and EC Metro.

The Emigration Canyon General Planning Process:

July 2019 - November 2020

30 - General Plan Steering Committee Meetings

10 - Emigration Canyon Metro Meetings

9 - Planning Commission Meetings

1- Workshop

1 - Survey

Advantages of Citizen Participation in Government Decision Making		
	Advantages to citizen participants	Advantages to government
Decision process	<ul style="list-style-type: none"> Education (learn from and inform government representatives) Persuade and enlighten government Gain skills for activist citizenship 	<ul style="list-style-type: none"> Education (learn from and inform citizens) Persuade citizens; build trust and allay anxiety or hostility Build strategic alliances Gain legitimacy of decisions
Outcomes	<ul style="list-style-type: none"> Break gridlock; achieve outcomes Gain some control over policy process Better policy and implementation decisions (tailored to local context) 	<ul style="list-style-type: none"> Break gridlock; achieve outcomes Avoid litigation costs Better policy and implementation decisions (tailored to local context)

Table 1.1: Advantages of citizen participation government decision making, adapted from Irvin & Stanbury, 2004.

1.3.2 SWOT and APAE Analysis

In the early stages of its work developing a draft of the General Plan, the GPSC conducted a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis (Figure 1.5), which is used to inform the goals and objectives associated with each element of the General Plan. The GPSC also conducted an Achieve, Preserve, Avoid, and Eliminate (APAE) analysis (Figure 1.6), which highlights possible actions relevant to every element included in this Plan. The SWOT analysis helps a community assess its assets and challenges, while the APAE analysis forms the basis for the plan of action to ensure desired future outcomes. The topics included in both the SWOT and APAE analyses are not ranked, quantified, or exhaustive, but they provide an early-stage brainstorm of topics likely to be of interest or concern for the residents of Emigration Canyon.

	Helpful to achieving the objective	Harmful to achieving the objective
Internal origin (attributes of the community)	Strengths Love for outdoors Physically active community Affluent Well educated Rural mountain feel Open space Hiking, biking, outdoor recreation activities Community involvement Wildlife	Weaknesses Low sense of community High traffic volume Lack of awareness of environmental issues Maintaining roads Difficulty communicating with other residents of the canyon Slow internet Wildland fires Timely snow removal Poor parking options
External origin (attributes of the environment)	Opportunities Promote conservation Easement to protect open land for public Buy land at trailheads for parking Nature Clean air Participate in septic smart week Wildlife viewing Support sustainable local businesses	Threats Over development High traffic volume Contaminated stream water Speed violations Wildland fires Exceeding groundwater capacity

Figure 1.5: Emigration Canyon Metro Township General Plan Steering Committee SWOT (strengths, weaknesses, opportunities, and threats) analysis. This analysis informs the goals and objectives associated with each element (for details see Chapter 7 and the Work Programs for each chapter).

		Do you have it?	
		No	Yes
Do you want it?	Yes	Achieve Connected trails system Parking (study, at trails, enforcement) Restrooms in safe/convenient areas Wildlife awareness/preservation Light pollution awareness/ordinance Sustainable water resource use Water conservation program Sense of community Community events (hikes, potlucks, music) Improved zoning regulations to control development High speed internet/Fiber optic (support telehealth, etc) Septic tank zoning update Septic tank improvement program Safety improvements for cyclists/road improvements Hazards/emergency preparedness Increased regulation of fireworks/improve fireworks education Short term rentals ordinance (so the Canyon can avoid them) Support sustainable local businesses	Preserve Water resources/natural resources Historic areas Stream flow Rural character/Character areas Night sky Open Space Land easement programs (Utah Open Lands) Clean air Code Red Firewise status Wildlife Wildlife corridors and habitats Recreational character/value Workspace for local artists/ musicians
	No	Avoid Loss of resources Unintended consequences from changes Overdevelopment Short term rentals Parking issues/Increased traffic Fires in the Canyon Invasive species Fire hazards (e.g. Balsam Fir) Water Rights Issues Overburdened onsite sewer systems Increasing traffic (especially through road improvements e.g. widening) Overuse of concrete barriers on road Exceeding limits of water resources	Eliminate Light pollution Noise pollution Air pollution Water pollution/Impaired waters Illegal camping Uncontrolled growth/development Fire hazards (e.g. fireworks, target shooting) Invasive species Septic system failures/health issues Illegal bow hunting (privacy/safety/habitat issues) Off road vehicles (off pavement use) Pull off at mouth of Canyon

1.3.3 Workshops and Surveys

To encourage wider community input, outreach to the Emigration Canyon community was conducted at key stages of General Plan development. Residents were invited to participate in a transportation planning workshop and/or a transportation and land use survey. Although this outreach focused on gathering input on the required general planning elements (i.e. transportation and land use), other related topics, such as open space, air quality, and economic development were also covered (see Appendix B and C for details). Unfortunately, due to the COVID-19 pandemic that arrived in Utah in March 2020, it was not possible to safely hold community-wide workshops to discuss Emigration Canyon's General Plan in person after this date..

Transportation Planning Workshop

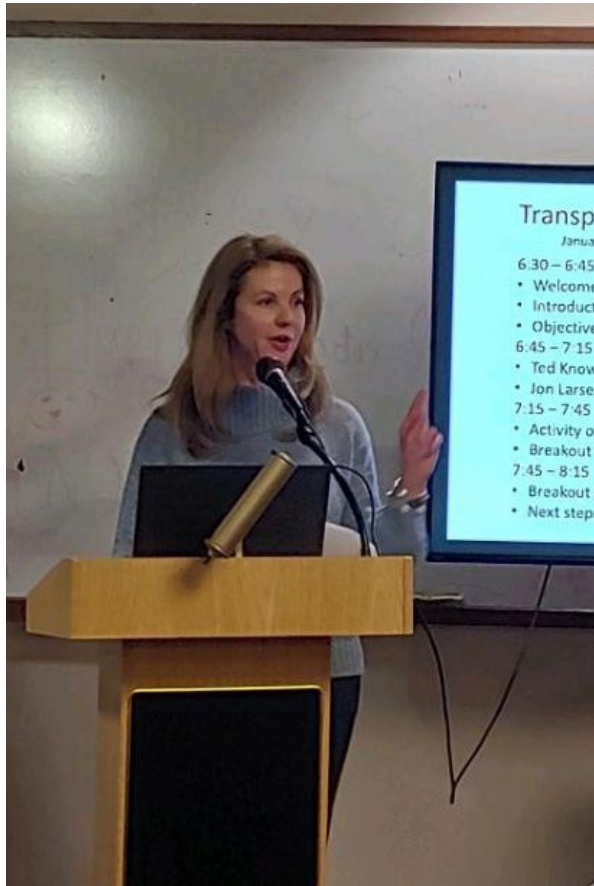
To elicit input on broad transportation planning needs across all of the MSD member communities, a Transportation Planning Values and Principles Workshop was held on January 30, 2020. At this workshop, 32 members of MSD-community Planning Commissions, Councils, General Plan Steering Committees, and several involved members of the public, developed a list of transportation values broadly applicable across the MSD. Five Emigration Canyon representatives contributed to the development of this list, which was then used to guide more in-depth discussions and explorations of transportation and land use planning options that would potentially be relevant for the Canyon (for details, see Chapter 3 and Appendix B).

Transportation and Land Use Survey

A Transportation and Land Use Survey was developed and disseminated to Emigration Canyon residents to get a better idea of the needs, concerns, and values associated with the area. The survey was sent to the EC Metro, PC, and GPSC on April 9th, 2020, posted on the MSD website, shared on MSD social media with targeted advertising, and posted on the EC Metro website. The survey was open through May 14th, 2020. The intention was to gather input from Emigration Canyon residents on their transportation and land use interests and needs (similar to an open house), rather than to collect a dataset

Figure 1.6: Emigration Canyon Metro Township General Plan Steering Committee APAE (achieve, preserve, avoid, and eliminate) analysis. While the SWOT analysis helps a community assess its assets and challenges, the APAE analysis forms the basis for the plan of action to ensure desired future outcomes (for details see Chapter 7 and the Work Programs for each chapter).

that was statistically representative of the demographics of the area. This kind of non-probability convenience sampling is commonly used to collect data on the key interests and needs of a group of people within a community, but inferences based



Lupita McClenning, Director of Planning & Development, presenting at the Transportation Planning Workshop held at the Salt Lake County Government Center. Photo courtesy of MSD Long-Range Planning Team.

on the sample should be made only about the sample itself (Bornstein et al., 2017). The data from this study is therefore considered as only one of several important components that inform the recommendations made throughout this General Plan.

The Transportation and Land Use Survey utilized an online survey platform, ArcGIS Survey 1-2-3, to ask MSD-area residents about their transportation and land use concerns and values in 14 questions. The questions included spatial and mapping components to allow for site-specific concerns and opportunities to be shared. Ninety-seven (97) Emigration Canyon residents completed the survey. The top concerns regarding development in Emigration Canyon identified by survey respondents are shown in Figure 1.7 (for details, see Chapter 4; Greater Salt Lake Municipal Services District, 2020; and Appendix C)

1.3.4 Data Analysis

For all elements of the General Plan, the variety of data and information collected from the community was analyzed, reviewed, and referenced with consideration for: publicly available reports and academic literature, the environment and history of Emigration Canyon, and current planning best practices and principles. This robust approach to data analysis establishes a fact-based foundation that can be used to guide future planning and decision making in Emigration Canyon.

Information on the kinds of analyses conducted for each element of the General

Plan are included in the subsections that follow. Workshop and survey data was analyzed using summary statistical analysis and thematic analysis techniques (for details see Appendix B and C).

Technical Assessment

The Technical Assessment is an integral component of the General Plan, as it provides detailed, fact-based information about the current state of Emigration Canyon, and makes basic projections about how its future could be shaped. The assessment is prepared by planning staff, who collect and analyze data and information and present the results in a clear format for consideration by the public and decision makers involved as the General Plan is developed. Data for the Technical Assessment is drawn from a variety of sources, most notably the US Census Bureau's American Community Survey 5-Year Estimates and Esri's Business Analyst. See Appendix D for the full Technical Assessment.

Land Use & Character Areas

ArcGIS was used extensively for analyses in the Land Use Chapter, including the land use inventory and character area analysis. The Wasatch Front Regional Council's (WFRC) shapefile layer: Salt Lake County Land Use Parcels 2018 was a key source of data. Although the data is two years old, it provided the most robust and accurate information on key items such as parcel size, total market value, land use, and square footage of structures available at the time. Major discrepancies are identified with asterisks or other notes. In the character area

analysis, population of each character area is estimated by multiplying the dwelling units of the character area (from WFRC data) by the average household size for Emigration Canyon. Esri Community Analyst was also used to provide some of the data found in this chapter.

Transportation & Mobility

The Transportation Chapter relied heavily on publicly available data from Wasatch Front Regional Council (WFRC), Utah Department of Transportation (UDOT), and the Lochner Report (2016) (included in Appendix E). Maps included in the Transportation Chapter were produced using ArcGIS, and sources of map data are included in figure subtitles. Data from the US Census Bureau's 5-year estimates were used to describe residents' transportation preferences and commuting patterns.

Economic Development Opportunities

The Economic Development Chapter includes data analysis of both local and regional economic conditions. Data regarding Emigration Canyon employment, businesses, and household spending patterns were derived from Esri Business Analyst or Community Analyst Reports and US Census Bureau's 5-year estimates. An analysis of location quotient and shift share was conducted using the US Bureau of Labor Statistics' Quarterly Census of Employment and Wages for Salt Lake County and is included in Appendix F. This analysis was accompanied by an overview of area market real estate reports that revealed trends in real estate vacancy

and net absorption for Northern Utah. This analysis relied heavily on NAI Excel's 2019 Outlook for Northern Utah.

Environment

The Environment Chapter includes data drawn from a range of reports and plans. Very little data specific to Emigration Canyon were available to include in this General Plan. Future actions that can be taken to remedy this issue are included in the Work Program for this element.

Resilience & Infrastructure

The Resilience and Infrastructure Chapter

includes data provided by the General Plan Steering Committee (social cohesion), and Emigration Canyon Improvement District (water systems). Maps included in the chapter were produced using ArcGIS, and sources of map data are included in figure subtitles. The hazards and risks analysis included in the chapter is primarily drawn from the recently completed Hazards Mitigation Plan for Emigration Canyon (Salt Lake County Emergency Management, 2019). Esri Community Analyst was used to conduct many of the other analyses included in the chapter.

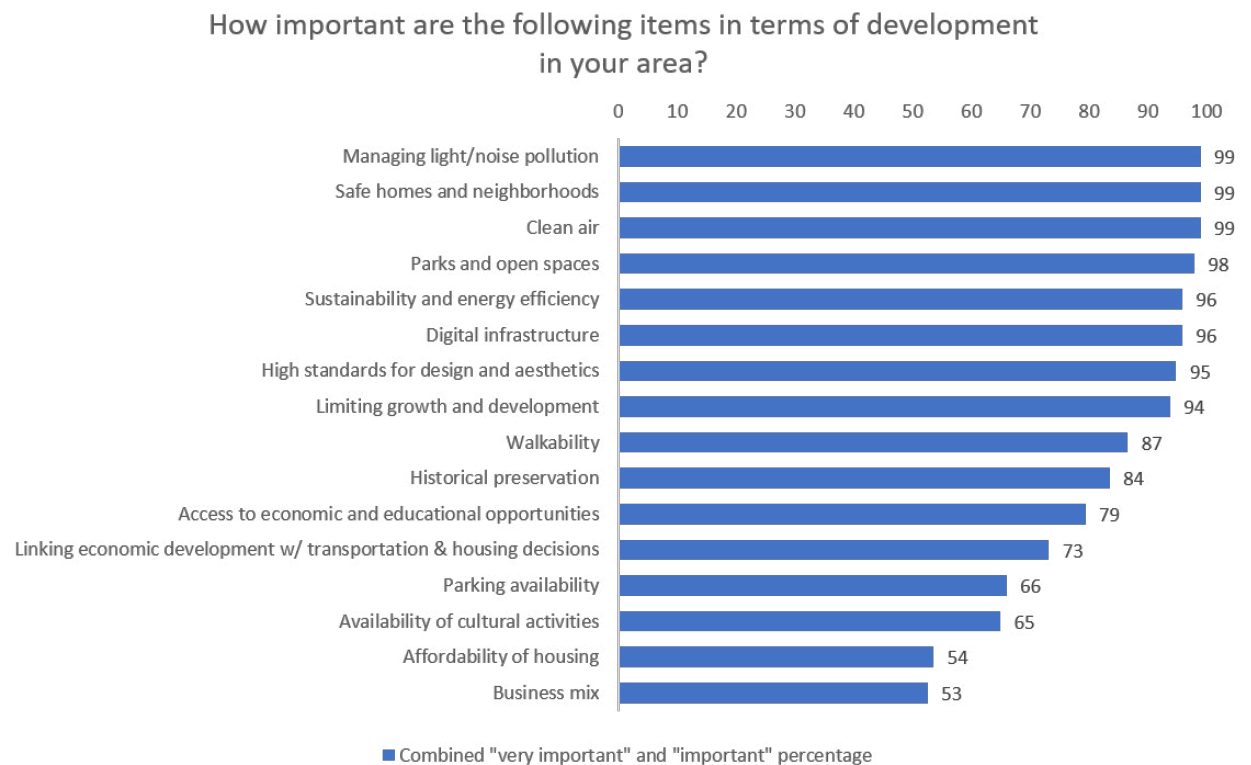


Figure 1.7: Emigration Canyon resident responses to the Land Use and Transportation Survey question "How important are the following items in terms of development in your area?"

1.3.5 Key Findings

Key themes, including trends, challenges, and opportunities, emerged from the overall analysis of community input. For example, several issues identified by the GPSC in the SWOT and APAE exercises are also highlighted by the wider Emigration Canyon community members who participated in the Transportation and Land Use survey (Figure 1.7). Clean air, managing noise and light pollution, and safe homes and neighborhoods each received a 99 percent response rate in terms of being considered either “very important” or “important” by Emigration Canyon residents who responded to the survey. Parks and open spaces, sustainability and energy efficiency, digital infrastructure (e.g. access to broadband), high standards for design and aesthetics, and limiting growth and development were also considered either “very important” or “important” by between 94 and 98 percent of survey respondents. Although water quality and quantity concerns were not included as an option for survey respondents, this issue was raised repeatedly by the GPSC, was included in write-in responses to the survey, and was emphasized in the literature review. The key themes to emerge as essential to consider in planning for the future of the Emigration Canyon community are therefore as follows:

Local character

Preserving qualities such as peace, quiet, tranquility and privacy by managing noise and light pollution, supporting design standards that respect local character, and managing growth and development.

Open spaces and ecosystems

Ensuring preservation of and access to parks, trails, open spaces and healthy, functioning ecosystems.

Road safety

Enhancing road safety for all users.

Environmental sustainability

Managing human impacts on the environment, including considerations of land, air, water, plants and wildlife, now and in the future.

Hazards planning

Increasing management of and planning for hazards and climate change.

Community connectedness and engagement

Enhancing community support networks, identity, and involvement, including improvements to digital infrastructure and support for local businesses.

These themes are considered throughout Emigration Canyon’s General Plan, and inform the goals, objectives, and actions that are included in the Community Work Program at the end of each chapter and in Chapter 7.





Aerial photo of Emigration Canyon. Photo courtesy of Andrew Wallace.



1.4. The Future We Choose

1.4.1 Community Vision

The community vision statement provides the overarching sense of purpose and direction for Emigration Canyon's General Plan. It outlines the desired long-term results of implementing the goals, objectives, and actions that are associated with each element of the Plan. The vision statement below was developed by the GPSC with input from the PC and the EC Metro.

Emigration Canyon is a progressive, family-oriented community with many opportunities for its residents to enjoy active, healthy, and modern lifestyles.

Emigration Canyon is comprised of distinct neighborhoods with residents who are dedicated to fostering a sense of community and are actively involved in public activities.

Emigration Canyon is a nationally recognized historic landmark and its residents embrace that heritage.

Emigration Canyon residents enjoy and value the Canyon's many excellent, cherished, well-maintained recreational amenities.

Emigration Canyon residents are committed to maintaining and protecting the Canyon's important ecosystems and resources.

1.4.2 Community Values

The following five values have been developed from the Emigration Canyon Vision Statement, SWOT/APAE Analysis, Transportation and Land Use Survey results, and with input from the GPSC, PC and EC Metro. Values are beliefs about desirable states or modes of conduct that guide behavior and prioritization. Each chapter of the General Plan includes

a work program that links these five values to goals, objectives, actions, outcomes and performance indicators. This work program can be used to evaluate progress towards the achievement of community goals, and the maintenance of community values. The process will help ensure that planning decisions are made based on the overarching values held by the members of the Emigration Canyon community.

Environmental sustainability & protection

Emigration Canyon can protect the natural environment of the canyon and aim to maintain or enhance environmental sustainability and stewardship now and for future generations; this includes but is not limited to features such as water quality, open space, noise management, dark skies, air

quality, biodiversity and climate resilience.

Community commitment

The Emigration Canyon community should celebrate its history and foster a strong sense of cohesive community identity through a commitment to public service, the enjoyment of shared open and community spaces, and the pursuit of intergenerational well-being.

Quality of life

Emigration Canyon should promote a range of well managed educational, cultural, economic and recreation opportunities that support the achievement of active, healthy, and modern lifestyles for all residents.

Health & safety

All members of the Emigration Canyon community should have access to a healthy, quiet, safe environment where traffic is well controlled and natural hazards are well managed and they can live, work, and play with peace of mind.

Engaged citizenry

All citizens of Emigration Canyon should have the opportunity to be knowledgeable about and encouraged to engage in local decision-making.

1.4.3 Using the Vision and Values to Guide this Plan

The vision and values of Emigration Canyon are reflected throughout this General Plan and guide the actions included in the Community Work Programs. For example, environmental sustainability works its way

into the Transportation Chapter, with actions oriented toward reducing vehicles miles traveled and improving air quality. Health and safety and quality of life are key components of the Land Use Chapter, which focuses on preserving and improving access to the open spaces which support human health and wellbeing. Commitment to community is reflected in our focus on creating opportunities for the community to gather to celebrate our history and identity, this is especially evident in the Land Use and Economic Development Chapters. Finally, engaged citizenship is a consideration throughout the General Plan. This is especially reflected in the Community Work Program, which creates active spaces for residents to get involved in the implementation of their General Plan.

1.4.4 Key Recommendations

Future challenges for the Emigration Canyon community are often linked to geography. The close proximity of Emigration Canyon to downtown Salt Lake City is both a strength and a challenge when it comes to progressing the community vision and upholding the community values. While this proximity makes it easy for Canyon residents to commute to work and other amenities, it also means the Canyon is vulnerable to overuse by visitors. Other substantial challenges for the community include – how to manage development pressures, how to manage water quality and quantity, and how to control the risk of wildfires and other hazards associated with the Wildland-Urban Interface. Seven key recommendations have been developed

to address these essential challenges in the coming years. These recommendations arose as top priorities for implementation from the many goals, objectives, and actions described in the Work Programs that accompany each chapter of this Plan.

Recommendation 1:

Preserve and enhance the ecological features, viewsheds, wildlife corridors, and open space of Emigration Canyon for future generations.

Recommendation 2:

In land management decision-making, protect watershed quality and ensure sustainable use of all water resources.

Recommendation 3:

Improve the safety, sustainability, and resilience of the built environment, including trails and other outdoor recreation infrastructure.

Recommendation 4:

Provide a safe, efficient transportation network for all users.

Recommendation 5:

Enhance community connectedness, engagement, and sense of place.

Recommendation 6:

Prepare for, mitigate and adapt to the effects of climate change, natural disaster risk, and other hazards.

Recommendation 7:

Foster responsible, equitable, and sustainable economic development in keeping with the character and values of Emigration Canyon.

CHAPTER 2: LAND USE & CHARACTER AREAS

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View of homes in Emigration Canyon. Photo Courtesy of Katie Cook Oborn.

2.1 THE IMPORTANCE OF LAND USE

The Land Use element of the General Plan establishes a vision for the future pattern of development in a community. It weaves each of the plan's unique sections together. Understanding current land use challenges and planning for future land use opportunities is critical because land use is part of the fabric of a community. Land use impacts everything: housing, transportation, economic opportunities, access to daily needs, and overall quality of life. For example, thoughtful land use planning ensures that households have access to transportation and recreational amenities, that schools are not located near sources of pollution, that commercial centers receive the traffic necessary to stay in business, and that municipal services and infrastructure can be efficiently provided. The pattern of land use in a community is thus a major determinant of area character and quality of life. Throughout this chapter, the connections between Emigration Canyon's land use and the topics outlined above are explored through data analysis, public feedback, and on-the-ground experiences.

2.1.1 State Code

The State of Utah acknowledges the importance of land use in community development and wellbeing. To comply with state law, Utah municipalities must incorporate a land use element into the General Plan. According to Utah Code § 10-

9α-403(3), the General Plan must include, "a land use element that:

(A) designates the long-term goals and the proposed extent, general distribution, and location of land for housing for residents of various income levels, business, industry, agriculture, recreation, education, public buildings and grounds, open space, and other categories of public and private uses of land as appropriate; and

(B) may include a statement of the projections for and standards of population density and building intensity recommended for the various land use categories covered by the plan."

2.1.2 Values, Roles and Responsibilities

Aligning Emigration Canyon's land use goals with regional and statewide values and responsibilities increases the likelihood of acquiring funding and successfully implementing desirable projects. Acknowledging the roles and responsibilities of the organizations and institutions which could have some influence on decisions regarding land use and implementation in Emigration Canyon, will help to clarify management expectations and coordinate land use goals and opportunities. The following is a brief overview of organizations and institutions which are most likely to present opportunities for coordination regarding land use and land

use implementation strategies.

The State of Utah

The State of Utah recognizes the close connection between quality of life and land use issues, including housing costs, traffic congestion, air quality, and leisure time. With these topics in mind, the Utah Life Elevated 2020 Initiative (Governor's Office of Management and Budget, 2020) identifies the following goals as part of a land use strategy designed to further enhance quality of life and future prosperity for all Utahans:

1. Ensure that Utahans have access to ample opportunities for jobs, education, recreation, and affordable, market-driven housing choices within close proximity.
2. Leverage existing and future infrastructure investments to reduce travel times and road congestion, optimize the use of Utah's limited water and improve air quality.

Wasatch Front Regional Council

As the Metropolitan Planning Organization responsible for a broad region including Emigration Canyon, the Wasatch Front Regional Council (WFRC) promotes an interconnected, interdisciplinary approach to planning that addresses the interactions among key planning elements such as transportation and land use. In collaboration with stakeholders from around the region, WFRC has developed a suite of goals (Figure

3.2), which are applicable throughout the region and which guide many research and funding decisions made by WFRC.

United States Forest Service

Much of Emigration Canyon is included within the Uinta-Wasatch-Cache National Forest (Figure 2.2) as part of the United States Forest Service (USFS) Salt Lake Ranger District. The land managed by the District supplies more than 60% of the drinking water for Salt Lake City residents (US Forest Service, n.d.). The Salt Lake City Watershed includes Emigration Canyon “from Burr Fork and Killyon Canyon above a point at the intersection of State Highways 65 and 172.” This area is today known as the intersection of Emigration Canyon Road and Pinecrest Canyon Road. Various rules and regulations have been put in place to protect this valuable water resource and ensure that the land remains in its natural state.

Utah Open Lands Conservation Association

Due to its proximity to Salt Lake City, unprotected areas throughout Emigration Canyon have been and continue to be of interest to property developers. The Utah Open Lands Conservation Association is a 501(c)(3) nonprofit land trust conservation association in the United States that is chartered to preserve and protect open space in order to maintain Utah’s natural heritage and quality of life for present and future generations. Since 2001, Utah Open Lands has raised funds and established partnerships to preserve numerous parcels

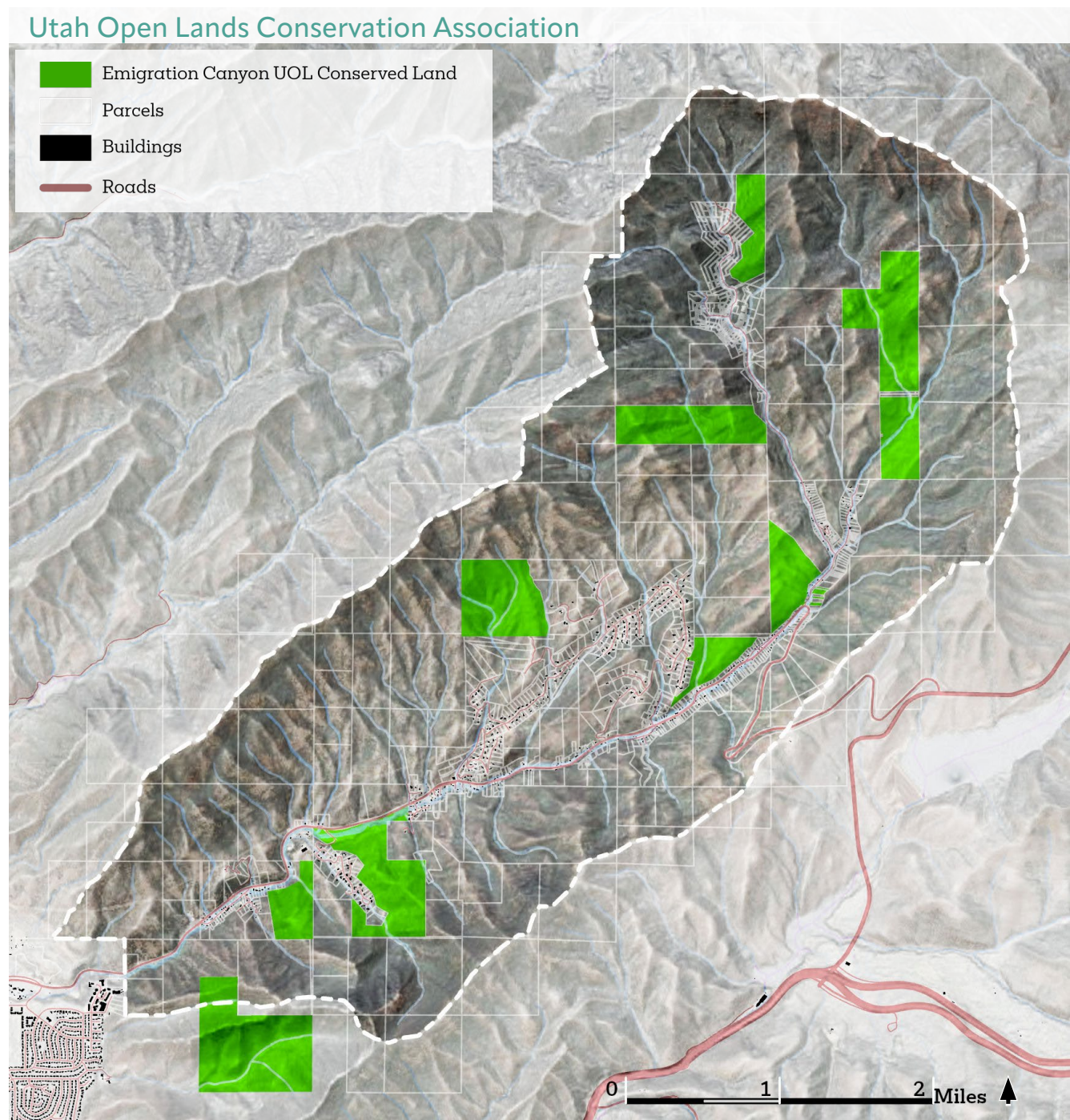


Figure 2.1: Lands held under easements by Utah Open Lands Conservation Association.

of land in Emigration Canyon, today totaling over 1,000 acres and approximately 9% of the land (Figure 2.1; Figure 2.2).

Salt Lake City

Lands in Emigration Canyon owned by the Salt Lake City Department of Public Utilities (SLCDPU) are maintained primarily for watershed and open space purposes. SLCDPU holds and maintains surface and groundwater rights in the Emigration Creek watershed for current and future water supply purposes. Title 17 Chapter 17.04 of the Salt Lake City Code defines a portion of the watershed as protected. This area is defined in the code as “All of the Emigration Canyon watershed area that contributes water to Emigration Creek from Burr Fork and Killyon Canyon above a point at the intersection of state Highways 65 and 172.” SLCDPU is currently updating a long-range watershed management plan for the area, which should be completed sometime in 2021.

Salt Lake County

Lands in Emigration Canyon owned by Salt Lake County are similarly maintained primarily for watershed and open space purposes. As part of this effort, Upper Emigration Creek (from Hogle Zoo to the headwaters) is designated as a Category 1 High Quality Waters in accordance with UAC R371-2, Standards of Quality for Waters of the State, Section R317-2-3, Antidegradation Policy (Salt Lake County Watershed Planning & Restoration, 2015). Designated Category 1 waters must be maintained at existing high quality. New point-source discharges are

prohibited in segments of Category 1 waters and diffuse sources must be controlled to the extent feasible through implementation of best management practices or regulatory programs. This designation helps to ensure that much of the publicly-owned and publicly-managed land in Emigration Canyon remains in its natural state.

Salt Lake County Public Health Department is also responsible for waste- and water-related permits in Emigration Canyon. County rules and regulations associated with water use or wastewater disposal may limit some land uses in the Canyon. For more details see <https://slco.org/health/permits/>

Emigration Canyon Improvement District

The Emigration Canyon Improvement District (EID) is a local special service district created under Utah Law. As such it is an independent governmental entity governed by a Board of Trustees. The EID is the governing body for water and wastewater for portions of Emigration Canyon and therefore establishes rules and regulations that govern this service including setting rates and fees. The EID also has the power to establish a property tax to help fund the services it provides. In recent years EID has installed fire hydrants in the canyon, which provide fire protection to most, but not all of Emigration Canyon residents. EID also supports water quality education and assists with septic system installation in some cases. The EID’s role in planning and zoning is limited. The EID does not have any power to adopt land use control ordinances or approve

or deny any land use applications, but EID input on the adoption and implementation of general plans is needed to assist with long term planning regarding water and wastewater provision in the Canyon. The Municipality’s plans will affect future demands on the EID for services and EID’s capacity will affect the Municipality’s ability to allow future growth.

2.1.3 Regional Character and Planning

Emigration Canyon is a community of approximately 1,466 residents whose homes are tucked into the folds of the Wasatch Mountains that rise above the growing metropolis of Salt Lake City and the surrounding Salt Lake Valley. Land uses are relatively constrained by a combination of mountainous geography, environmental characteristics, limited water resources, and local values. However, such close proximity to the thriving Wasatch Front region means that many external drivers must factor into Municipality planning and decision making. Emigration Canyon is not included in the Wasatch Canyons General Plan, a regional planning document that considers many of the surrounding canyons, there are many parallels in terms of planning interests and needs (see Appendix G for details). Like Emigration Canyon, the canyons and foothills included in the Wasatch Canyons General Plan are under increasing pressure from visitation, development, traffic, and other factors such as climate change (Salt Lake County Regional Development, 2020). Because of these concerns, this 2022 Emigration Canyon

General Plan seeks to manage the influence of these external drivers and to preserve the rural character of Emigration Canyon for future generations to enjoy.

2.1.4 Community Input

This General Plan was developed using a participatory approach that engaged members of the Emigration Canyon community in planning for the future of the Municipality. Details on this process are provided in section 1.4. As part of the community input process, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis (Figure 1.5) and an Achieve, Preserve, Avoid, and Eliminate (APAE) analysis (Figure 1.6) was conducted by the GPSC. These analyses highlighted many subjects relevant to this Land Use element. A summary of key results are described in the two subsections that follow. Key results from the Transportation and Land Use Survey relevant for land use planning are described in the third subsection

SWOT Analysis (Land Use)

Land use strengths associated with Emigration Canyon as identified in Figure 1.5 include the rural mountain feel, open space, and outdoor recreation activities like hiking and biking enjoyed by area residents and visitors. Land use weaknesses included high traffic volumes, issues with internet and cellular access and a lack of community gathering spaces. Several land use opportunities were identified; these generally related to promoting, protecting, or enjoying open spaces and nature. Threats from over

development, traffic, water contamination and exceeding groundwater capacity were the major land use concerns raised.

APAE Analysis (Land Use)

Land use-related items identified in the APAE analysis (Figure 1.6) largely reflected the environmental sustainability and protection, community commitment, and quality of life values associated with Emigration Canyon. In terms of things to be achieved, this included a connected trails system and associated parking, increased wildlife awareness and preservation, sustainable resource use and supporting ordinances, and zoning that protects the dark skies and current character of the Canyon. Achieving a sense of community through better land use planning was also considered very important for Emigration Canyon. Characteristics that were identified as needing to be preserved included water and other natural resources, dark skies and open spaces (including the land easement programs that facilitate land conservation), and the rural and historic character of the area. Items to be avoided included parking issues (e.g. lack of safe parking), loss of resources, and over development of the Canyon, including short term rentals, and other unintended changes that could result from a lack of careful planning. Things that were identified that need to be eliminated included a range of contaminants such as air, water, and light pollution, uncontrolled growth, and illegal camping.

Transportation and Land Use Survey

The top land use development-related concerns for Emigration Canyon identified by the General Plan Steering Committee in the SWOT and APAE exercises are also largely reflected by the wider Emigration Canyon community members who participated in the transportation and land use survey (Figure 1.7). Issues such as managing noise and light pollution and safe homes and neighborhoods each received a 99 percent response rate in terms of being considered either “very important” or “important” by Emigration Canyon residents who responded to the survey. Parks and open spaces was also considered either “very important” or “important” by 98 percent of survey respondents from Emigration Canyon. High standards for design and aesthetics was supported by 95 percent, while limiting growth and development was supported by 94 percent of survey respondents as either “very important” or “important”.

This analysis informs the goals, objectives, and actions that follow in the Community Work Program at the end of the chapter and in Chapter 7.



2.2 EXISTING CONDITIONS

Double rainbow, Emigration Canyon. Photo Courtesy of Catherine Harris.

Land use planning is a decision-making process that specifies the appropriate or designated types of uses of a piece or pieces of land. Land use planning generally aims to balance private property rights with the desired community character and other broad considerations. This process can be accomplished, at least in part, through the application of zoning regulations that

specifically define and regulate the allowable uses, designs, and densities in specific areas. It is generally harder to change land use designations than zoning, as they operate at different scales (i.e. land use is more likely to apply to an area composed of multiple parcels, while zoning can be parcel by parcel).

2.2.1 Land Use

Emigration Canyon includes approximately 12,000 acres in total land area. Land in Emigration Canyon (Figure 2.3) is primarily devoted to open space/natural resources, with 8,163.84 total acres and approximately 68 percent of the total land area in the Canyon associated with this use. Not surprisingly,

Current Land Use

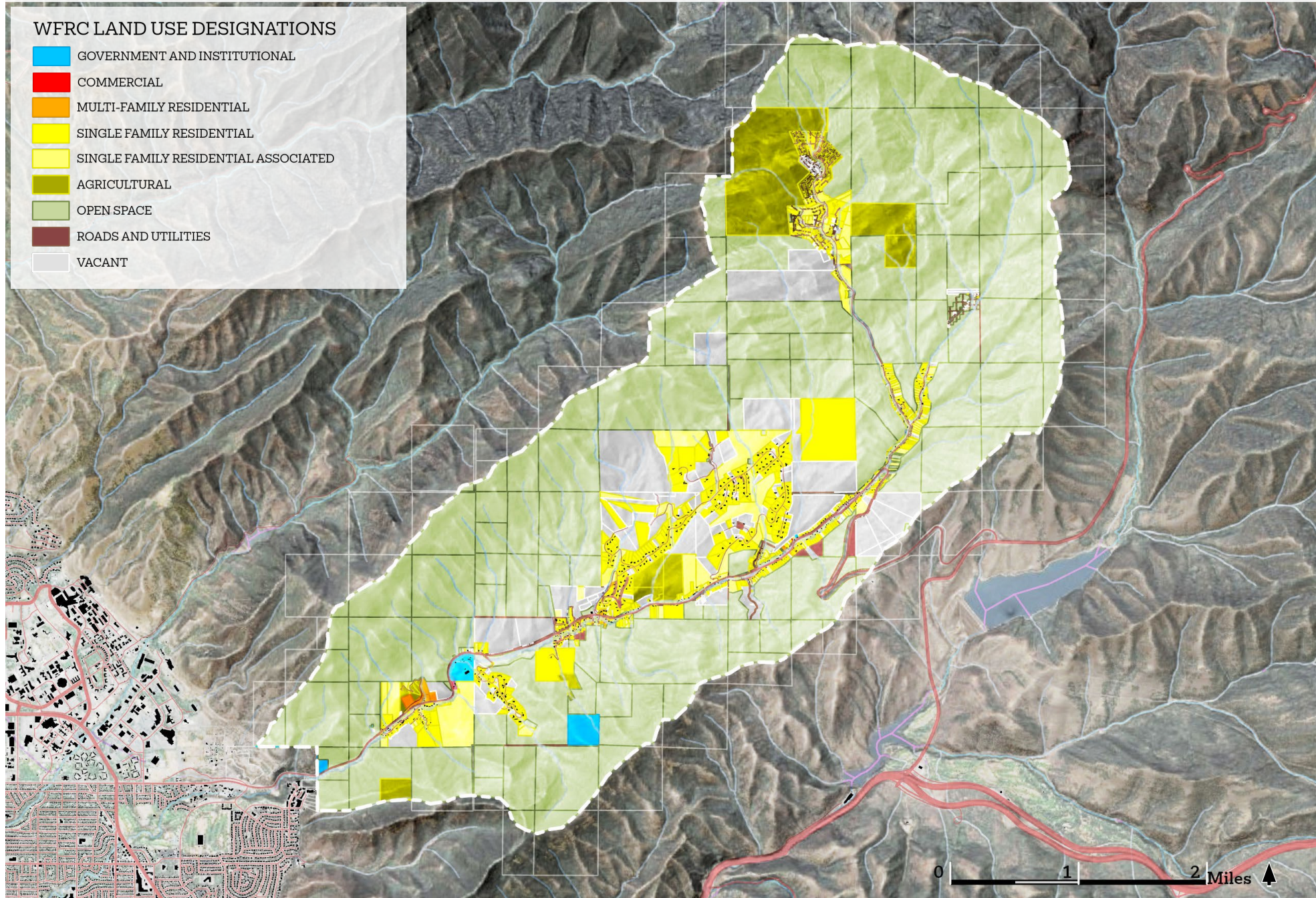


Figure 2.3: Current Land Use in Emigration Canyon.

this use also aligns closely with the areas in the Canyon that are publicly owned and managed (Figure 2.2). Vacant lots are currently listed as the second most common land use in the Canyon with 1,269.21 total acres, but a substantial amount of this area may be subject to conservation easements (for example with Utah Open Lands) and is therefore not available for development. Additional development constraints on many of these parcels include steep grades, public health permitting issues related to water and wastewater, lack of access, or other zoning conditions (e.g. see section on FCOZ). More details on vacant lots are included in the Character Areas section of this chapter, but all information provided in this General Plan is for reference only; more detailed assessments of individual parcels is required in order to make informed decisions about appropriate land use at that scale. Residential uses are the next most common in Emigration Canyon, with 866.91 total acres or just under 8 percent of the area in the Municipality associated with single-family residential uses, and 0.05 percent of the Municipality used for multi-family residential land uses. There are 642

acres designated for agricultural land use in Emigration Canyon but none of this land is currently used for intensive agricultural purposes.

2.2.2 Public/Private Ownership

In 2012, when the last General Plan for Emigration Canyon was completed, approximately 60 percent of Emigration Canyon was publicly owned or managed. This percentage has increased significantly (by at least 11 percent) in the ensuing eight years; in 2020, 71.6 percent or over 8,000 acres of Emigration Canyon is publicly owned or managed land (Figure 2.2). Public lands preservation has increased in recognition of the vital role that the Canyon plays in providing both water and recreation opportunities to the rapidly expanding population of Salt Lake City and Salt Lake County. The concerted preservation efforts of Utah Open Lands, Salt Lake City, Salt Lake County, and dedicated members of the community have contributed substantially to the cause in recent years.

The amount of public lands devoted to open space in Emigration Canyon has

increased through purchases, donations and designations over the years, but the recreational use of the area has also presumably increased along with regional population growth (Harris, 2019). This has led to concerns among residents regarding parking, traffic, biodiversity protection, noise, and sanitation. These concerns are addressed in some detail in the Trails Plan 2007 (Salt Lake County Parks and Recreation, 2007; Appendix H; Emigration Canyon Community Council, 2019) as well as in the goals and objectives included in the Land Use Work Program. Currently, trails in Emigration Canyon are largely informal and unmaintained and range across both public and private lands. The Municipality intends to develop multi-use designated trails, accommodating a mix of hiking and biking activities where appropriate, largely on public lands (see Appendix I for details). Additional details on these plans are included in the Character Areas section below.

Public Private Land Ownership

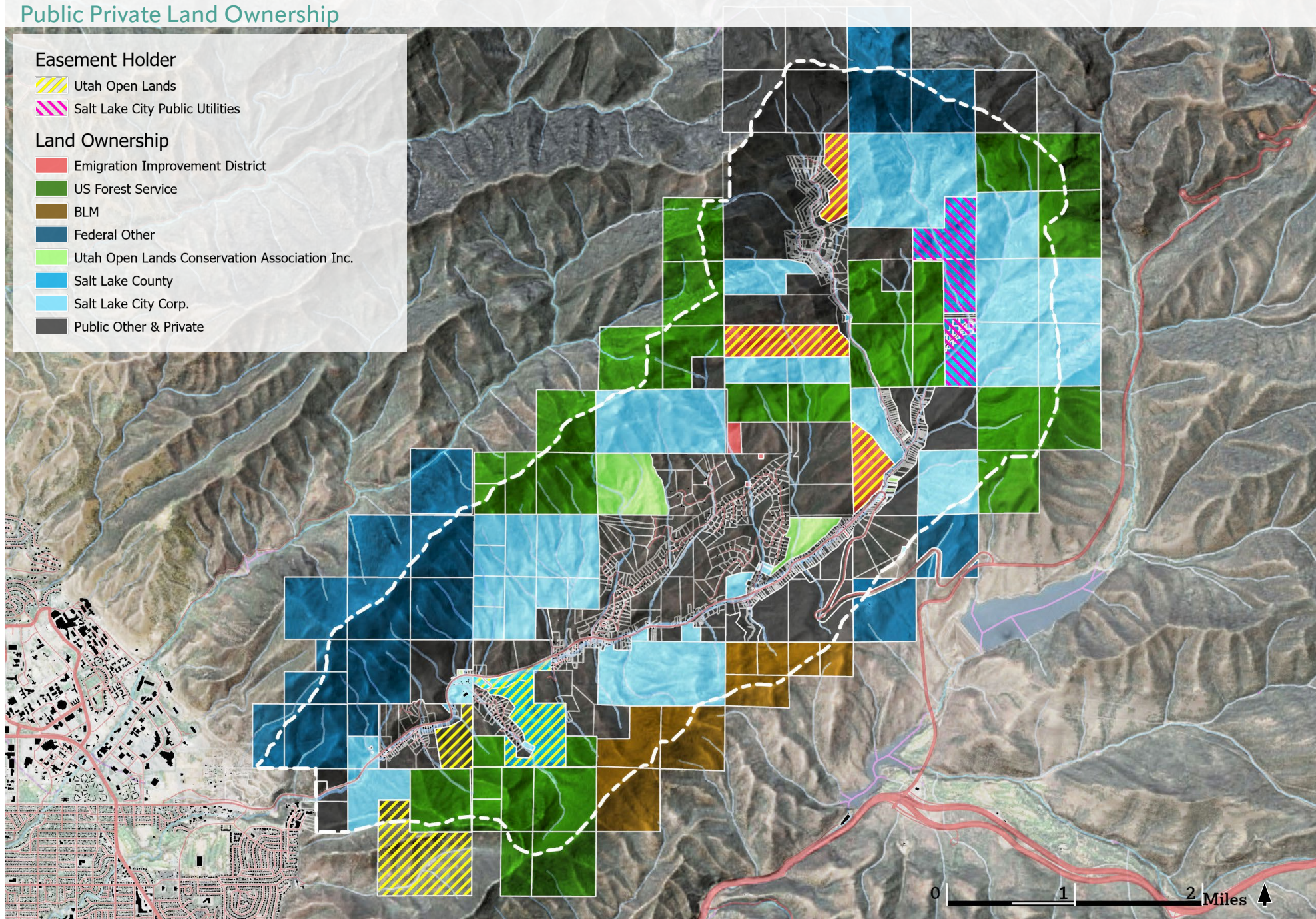


Figure 2.2: Public/Private Land Ownership in Emigration Canyon.

2.2.3 Zoning

Zoning codes are intended to implement land use policies and goals. Zoning codes are a set of rules that regulate what can and cannot be done on a particular piece of property. This is accomplished through standards such as minimum lot sizes, height requirements, lot coverage limits, and setback requirements that are established and enforced by the local land use authority. Zoning codes and associated maps (e.g. Figure 2.4) define and identify zone classifications (e.g. Table 2.1); zone classifications define allowable uses and the maps indicate zone boundaries. Figure 2.4 summarizes the current zoning designations in Emigration Canyon, while Figures 2.6-2.8 provide more detail on particular zoning categories or areas.

Nearly all the land in Emigration Canyon is currently zoned for Forestry and Recreation (FR) of various lot sizes. With limited commercial amenities, residents must travel outside of the Canyon for most of their daily needs, including food, employment, and education. Over 10,000 acres (88.5 percent) of the Municipality’s land is zoned FR-20. This zone allows forestry, recreational, and single-family residential development but only if such development will not damage natural and scenic resources in the Canyon. Minimum lot size is 20 acres in the FR-20

EMIGRATION CANYON ZONING			
Zone	Acres by Zone	% of Total Acres	Zone Description
C-2 <i>*Includes recent zoning changes</i>	9.8	0.1%	Allows for the development of community commercial uses when zoning criteria are met.
R-M <i>*Includes recent zoning changes</i>	.09	0.0%	Allows for high-density residential development, but also permits agriculture. Minimum lot area is 5,000 sq ft for a single-family residential unit, plus 750 sq ft per additional unit. Short term rentals are a conditional use.
FR-0.5	257.8	2.2%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 0.5 acre)
FR-1	598.2	5.2%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 1 acre)
FR-2.5	19.7	0.2%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 2.5 acre)
FR-5	96.9	0.8%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 5 acre)
FR-10 <i>*Includes recent zoning changes (shown as FR-10/ZC on zoning map)</i>	341.8	0.8%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 10 acre)
FR-20	10,200.7	3.0%	Permits forestry, recreational, and single family residential development where such development will not damage natural and scenic resources. (Lot size 20 acre)

Table 2.1: Zone Classification Source: Emigration Canyon Code, 2020.

Zoning

EMIGRATION CANYON ZONING

- C-2/ZC
- R-M/ZC
- FR-0.5
- FR-1
- FR-2.5
- FR-5
- FR-10
- FR-10/ZC
- FR-20

* ZC indicates recent zoning change made

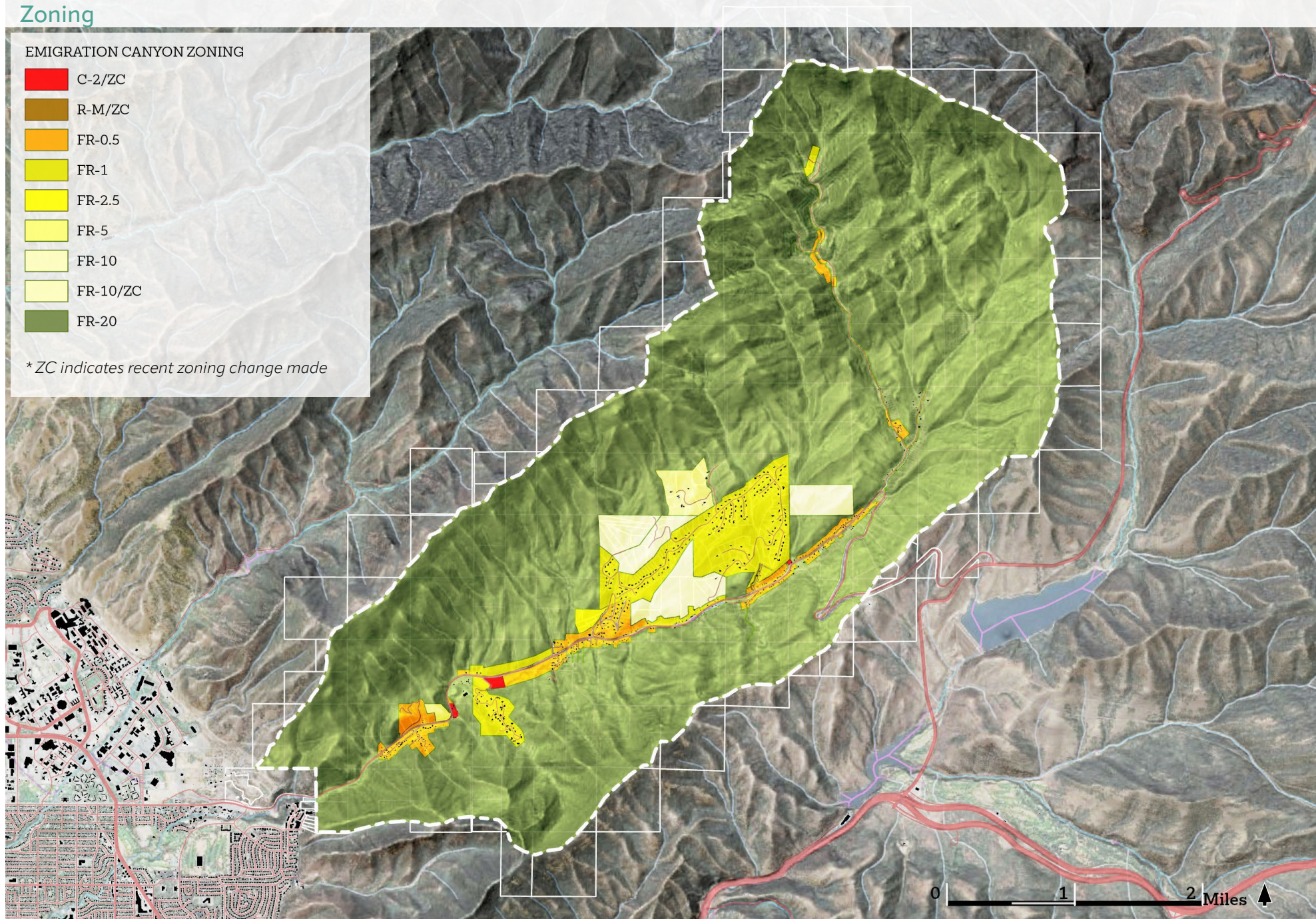


Figure 2.4: Current zoning for Emigration Canyon. See Figures 2.10 and 2.11 for details on commercial zoning.

Foothills and Canyon Overlay Zone (FCOZ)

In 1998, an overlay zone was applied to unincorporated areas of Salt Lake County in the Wasatch Canyons, including Emigration Canyon. The overlay zone and its associated zoning regulations are known as the Foothills and Canyons Overlay Zone or FCOZ. The general purpose of FCOZ is to preserve the natural character of the Wasatch Canyons by establishing standards for foothill and canyon development. FCOZ standards allow proposed development to be evaluated on a site-by-site basis, while ensuring that approved development will be compatible with the natural landscape. FCOZ sets limits on land disturbance and prohibits development on steeper slopes. FCOZ also establishes standards for required setbacks from stream channels, protected ridgelines (see Figure 2.5) and wetland areas.

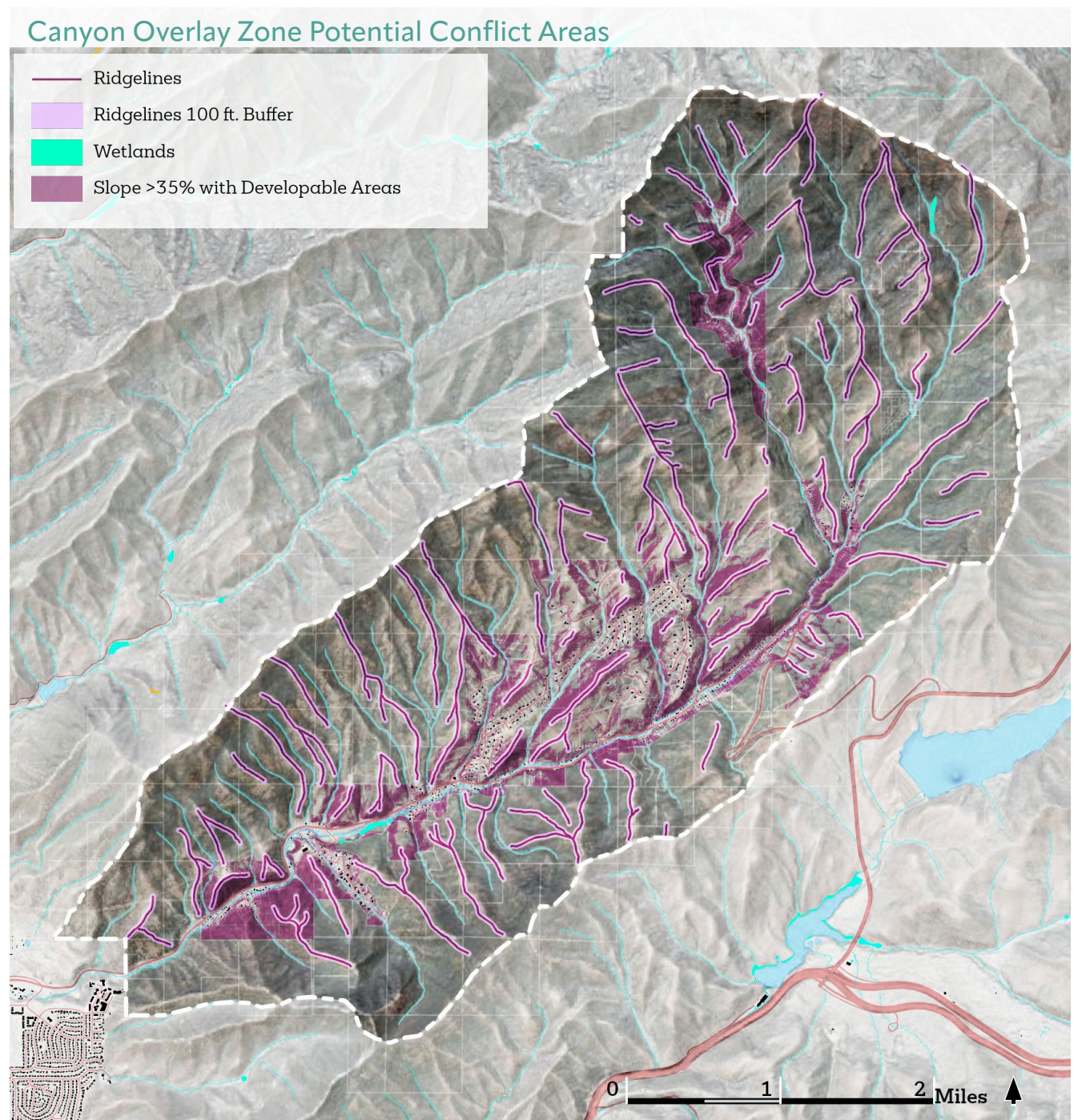


Figure 2.5: Ridgeline protection areas in Emigration Canyon.

Commercial Zones

Emigration Canyon has only a small amount of existing commercial development (Figure 2.6). In 2020, Esri Community Analyst indicated that there were approximately 15 businesses based in Emigration Canyon, while the MSD has closer to 25 businesses on record in the area. The most well-known businesses in the Canyon are Ruth's Diner and Emigration Brewing Company. Emigration Canyon has only limited brick-and-mortar commercial availability (Figures 2.7 and 2.8) and expansion is largely limited by lack of commercial property available in the Canyon, lack of available parking, environmental constraints, and limited appetite for additional commercial zoning within the community.

**Commercial & Residential Zones /
Former Sun and Moon Cafe Area** □

**Commercial & Residential Zones /
Ruth's Diner & Emigration Brewing
Company Area** □

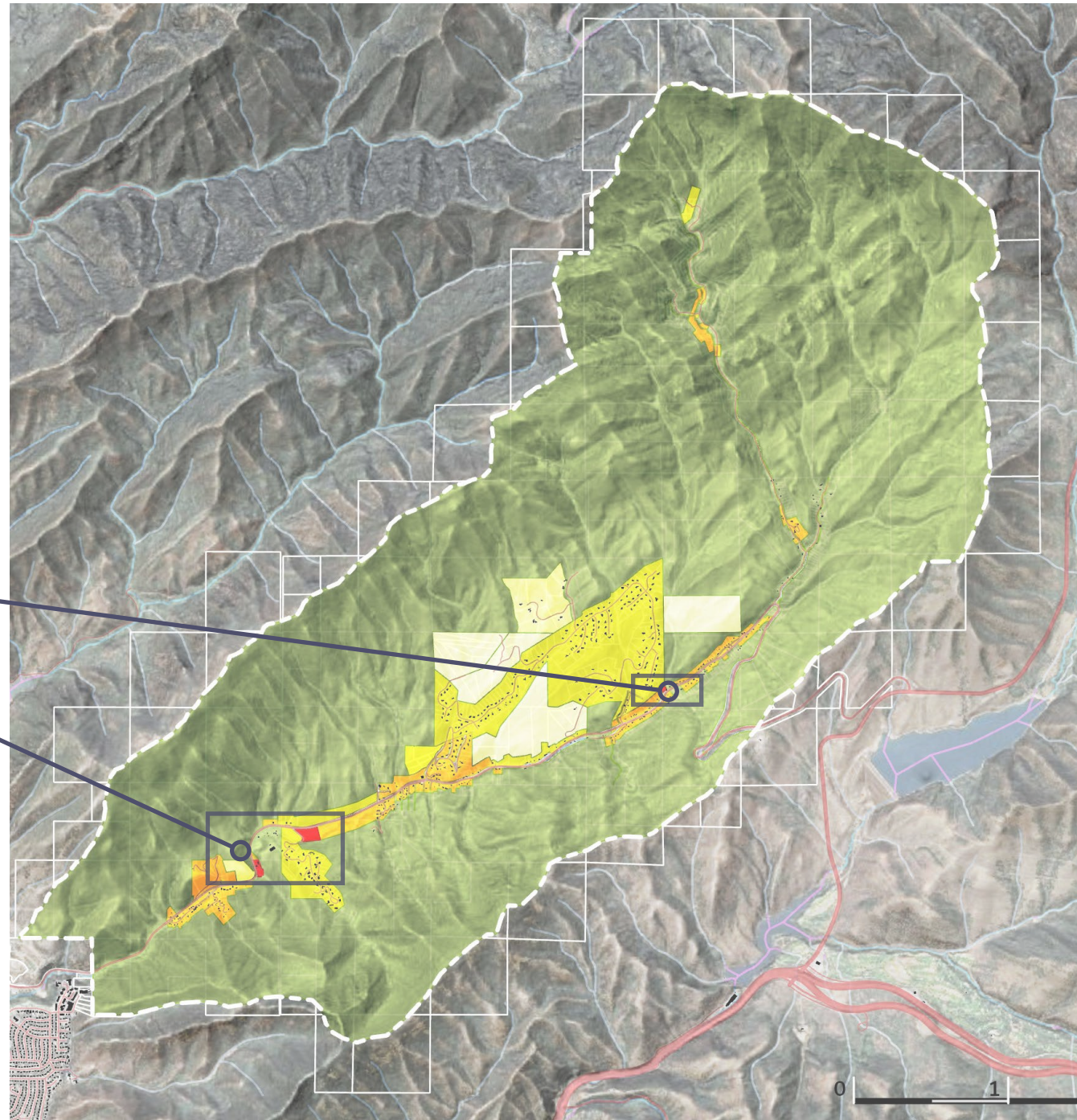


Figure 2.6: Residential and Commercially Developed Areas. See Figures 2.7 and 2.8 for details on commercial zoning.

Commercial & Residential Zones | Ruth's Diner Area

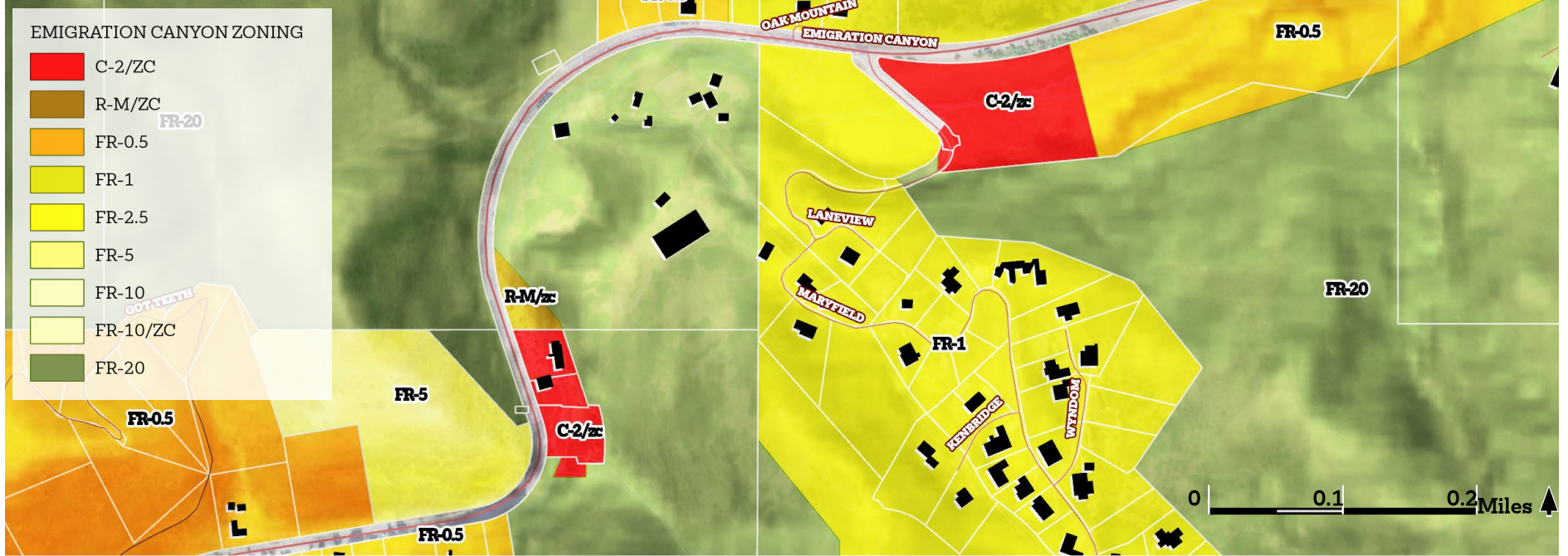


Figure 2.7: Commercial Zones near Ruth's Diner. Please note that the largest commercially zoned parcel shown is under a conservation easement and therefore is not available for commercial development. Updates to zoning ordinances that will reflect this change are included in the Community Work Program at the end of this chapter and also in Chapter 7.



Ruth's Diner in Emigration Canyon. Photo Courtesy of Maridene Alexander.



Emigration Canyon Brewery. Photo Courtesy of Maridene Alexander.

Commercial & Residential Zones | Former Sun and Moon Cafe Area

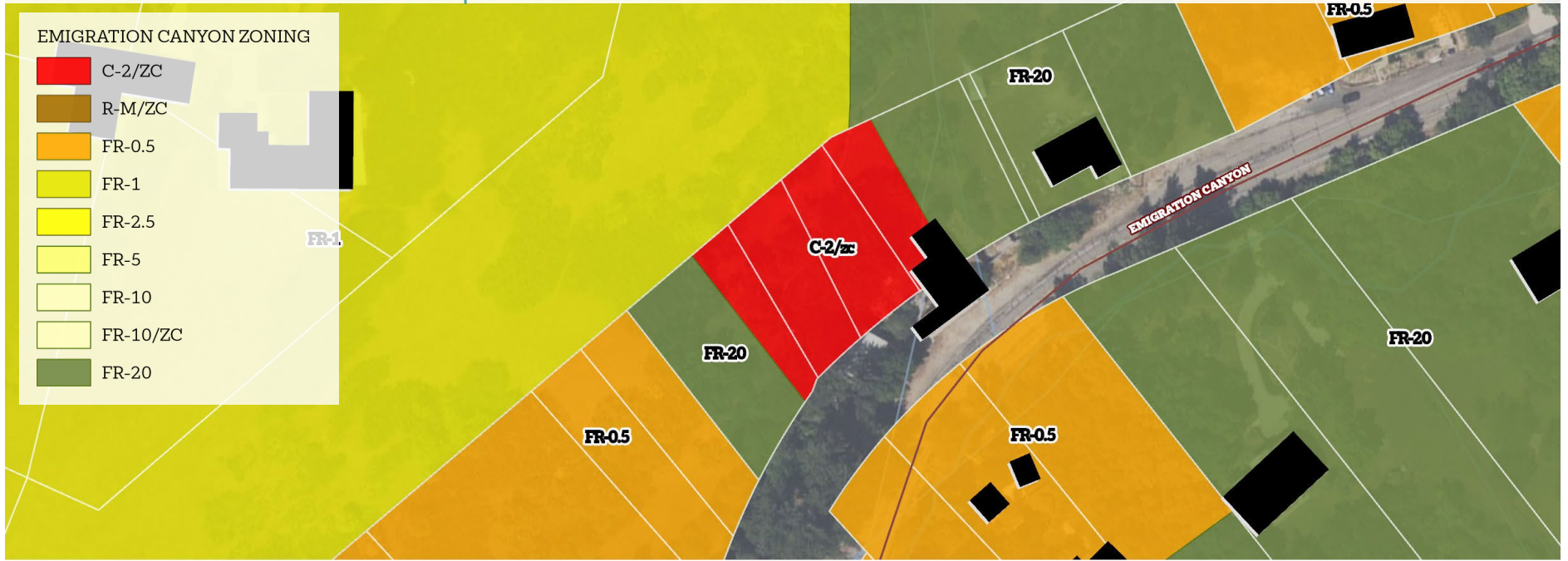


Figure 2.8: Commercial Zones near former Sun & Moon Cafe.



Emigration Canyon Former Sun and Moon Cafe. Photo Courtesy of John E.



2.3 CHARACTER AREAS

“Flavor is one thing Emigration Canyon does not lack. From its lasting historic significance to Utah and the West to its offbeat aura today, there is no place like it along the Wasatch Front.”

- Dennis Romboy, Deseret News

2.3.1 Future Character Areas

To take a holistic approach to planning for the future of Emigration Canyon’s land use, areas with different contexts that merit more sensitive design responses were grouped together into “character areas”. The character areas defined in this section are intended to acknowledge these varying settings. Building, landscape, and streetscape features, as well as the identities and interests of those who live and work in these areas, combine to form character areas.

Existing features, including both characteristics that are valued and concerns that need to be addressed, are considered in the development of a future vision for each

area in which new characteristics may also be introduced. The Future Land Use and Character Areas Map (Figure 2.9), along with the character area narratives that follow, lay out a vision, specific goals, appropriate land uses, and implementation strategies for Emigration Canyon’s unique areas and neighborhoods.

This combined information should be considered along with the current Land Use Map (Figure 2.3), the Zoning (Figure 2.4), and specific policies and ordinances when decision-makers consider land development questions or requests. The maps provided in this chapter, and throughout the General Plan, are for reference purposes only. Individual parcels will require detailed study before any

building activity is allowed.

In addition to the maps provided throughout this section, the supporting text provides a written description of the patterns of development that are acceptable in each area. The supporting narrative provides policy direction for regulating development with the goal of maintaining consistent character within each area in alignment with the community’s overarching vision and values. Where appropriate, statements for policies and goals are also established. There are four character areas in total for Emigration Canyon: Main Canyon Corridor, Maryfield/Pioneer, Pinecrest/Killyons, and Open Space.

Character Areas (All)

- Main Canyon Corridor
- Maryfield/Pioneer
- Pinecrest/Killyons
- Open Space

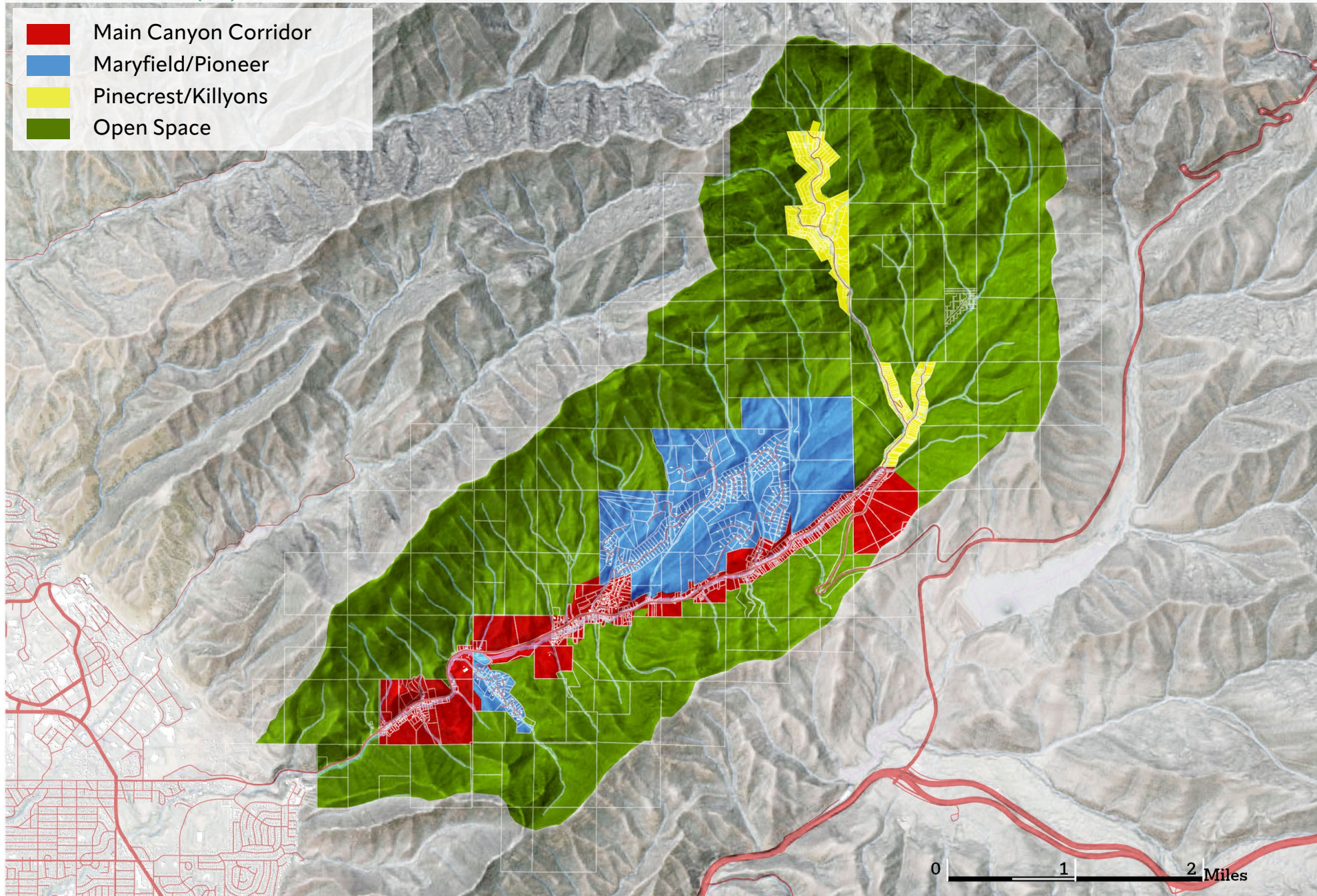


Figure 2.9: Future Land Use and Character Areas Map for Emigration Canyon.

Main Canyon Corridor Character Area

Description:

The Main Canyon Corridor Character Area is steeped in history and maintains a strong sense of community up and down the Canyon. The road itself provides ready access between Salt Lake City, Emigration Canyon, and points further east, making several of the area’s most iconic sites, including Ruth’s Diner, Camp Kostopulos, and two informal preserves (Perkins Flat Preserve and Owl’s Meadow Preserve), accessible to visitors. As throughout the rest of Emigration Canyon, privately-owned land has been developed into a variety of residential lot sizes that are primarily single-family oriented. Sites near the road were largely developed some time ago, but some vacant lots remain due to building constraints such as steep hillsides.

Descriptions of neighborhoods incorporated into the Main Canyon Corridor Character Area (see [Appendix J, Figure A](#)) include Acorn Hills, Badger Hollow, Maple Grove, Quarter Mile Road, Skycrest, Sunnydale, and Trails End.

Area vision:

The cultural heritage and natural resources of the Canyon are well protected for future generations to enjoy, while a holistic and resilient community thrives. In particular, the small commercial area located near the western entrance to Emigration Canyon is preserved, and some additional spaces are made available for sustainable economic development compatible with the existing character of the Canyon. Visitation to

Emigration Canyon is well-managed to control noise and nuisance, and to protect the natural environment of the area.

Future zoning considerations: C-2, FR-0.5, FR-1, FR-2.5, FR-5, FR-10, FR-20, R-M, NC

Current Character Area Snapshot:

- **Area Acres:** 905.513
- **Dwelling units:** 288
- **Estimated population:** # dwelling units (288) x average household size (2.6) = 749
- **Density:** 288 dwelling units/905.513 acres = .318 du/acre

Main Canyon Corridor Character Area – Zoning Summary		
Zone	Frequency	Acres
C-2/zc	5	9.551
FR-0.5	32	228.564
FR-1	4	65.982
FR-10	1	1.3225
FR-10/zc	1	0.024
FR-2.5	1	19.240
FR-20	7	554.194
FR-5	1	12.032
R-M/zc	1	0.888

Table 2.2 (above): Main Canyon Corridor Character Area Zoning Summary.

Main Canyon Corridor Character Area – Land Use Summary		
Land Use	Parcels	Acres
Commercial and Associated Commercial	3 parcels	1.731
Multi-Family Residential and Associated Multi-Family Residential	33 parcels	25.080
Government and Institutional	3 parcels	24.778
Agricultural	9 parcels	20.651
Single Family Residential and Associated Single Family Residential	441 parcels	425.527
Vacant Properties	86 parcels	294.872
Preserves, Recreational Facilities, and Open Spaces	48 parcels	90.451
Roads and Utilities	42 parcels	22.421

Table 2.3 (right): Main Canyon Corridor Character Area Land Use Summary data from WFRC’s Land Use Inventory (Wasatch Front Regional Council, 2018c).

Main Canyon Corridor Character Area Vision Implementation Strategies:

Allow small home-based businesses (e.g. limited to those persons living in the residence), as long as parking is available and deemed adequate for the type of business desired.

Preserve existing zoning standards that protect the unique canyon ecosystem and scenery, including those that mandate large-lot zoning where such zoning is appropriate for the mountain setting.

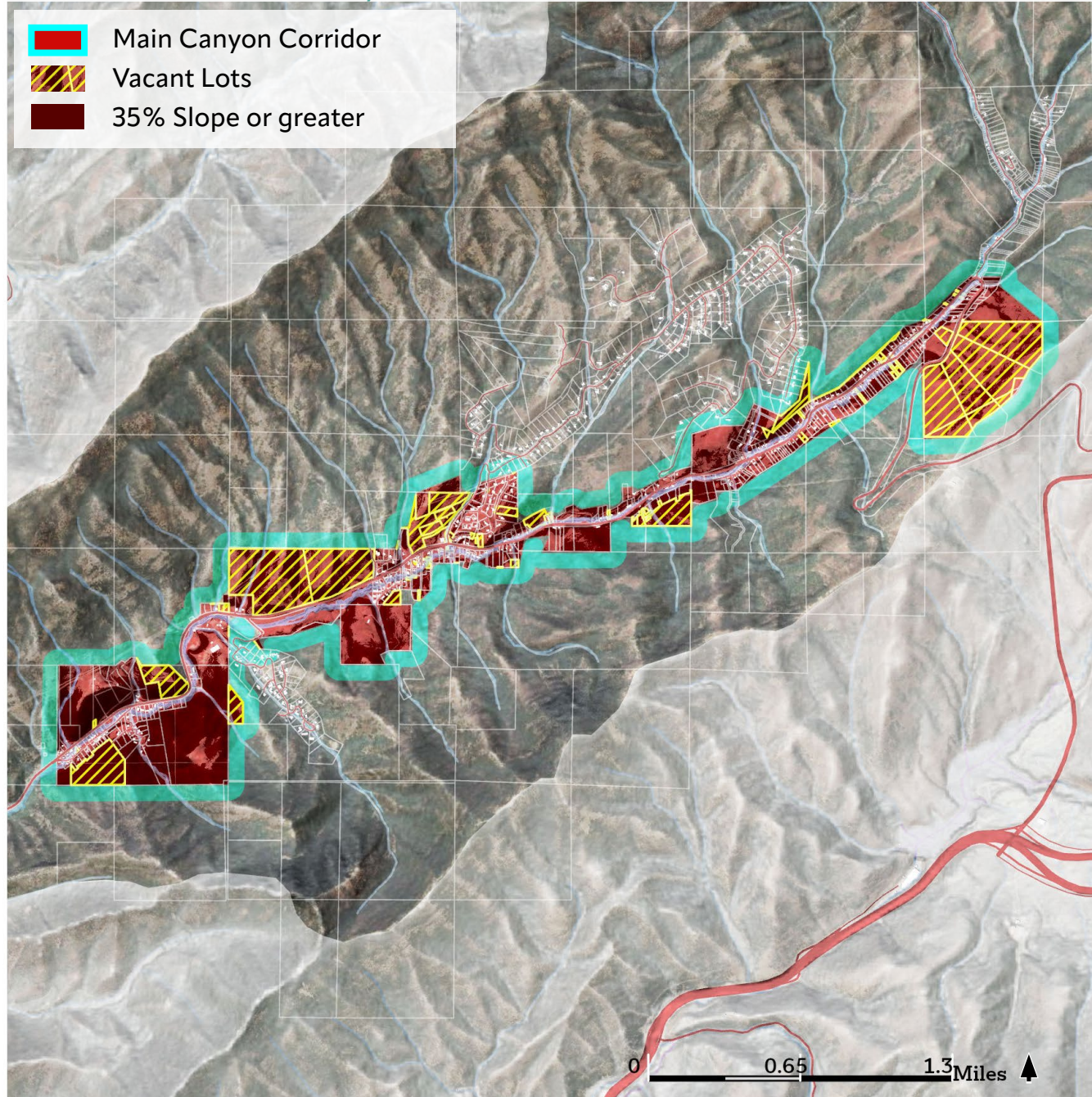
Support land use and development patterns that incorporate nature, scale and use into the built environment and increase public awareness and responsibility toward the natural environment.

Establish a working group, at EC Metro's discretion, of local artists, educators, and residents to develop historic markers, educational signage, and wayfinding signage.

Consider environmental impact, and impact on roads and traffic when evaluating proposed changes in commercial or residential zoning.

Figure 2.10: Vacant lot and slope constraints in the Main Canyon Corridor Character Area. According to WFRC's Land Use Inventory (Wasatch Front Regional Council, 2018c), there are 86 vacant lots totaling 294.871 Acres in the Main Canyon Corridor Character Area. The buildability of many of these lots is limited by a range of constraints, including large proportions of the land that have a greater than 35% slope, as shown in this figure.

Character Areas (Main Canyon Corridor)



Maryfield/Pioneer Character Area

Description:

The most recent developments in Emigration Canyon, put in place over the last few decades, include a variety of residential lot sizes that are primarily single-family oriented. These developments aim to provide a safe, private and serene sanctuary for their residents. They include roads built to current industry standards and surrounding open space that is often privately held or accessed.

Descriptions of neighborhoods incorporated into the Maryfield/Pioneer Character Area (see [Appendix J, Figure A](#)) include Emigration Place and Emigration Oaks.

Area vision:

The peaceful and rural atmosphere of the area is maintained while a high standard of service for residents is also upheld. While some trails, parking, and vacant lots may be developed in the area, maintaining the privacy of residents and the excellent condition of the surrounding open space generally takes precedence.

Future zoning considerations: FR-0.5, FR-1, FR-2.5, FR-5, FR-10, FR-20

Current Character Area Snapshot:

- **Area Acres:** 1340.926
- **Dwelling units:** 255
- **Estimated population:** # dwelling units (255) x average household size (2.6) = 663
- **Density:** 255 dwelling units/1340.926 acres = .190 du/acre

Maryfield/Pioneer Character Area - Land Use Summary		
Land Use	Parcels	Acres
Multi-Family Residential and Associated Multi-Family Residential	3 parcels	0.144
Agricultural	4 parcels	68.811
Single Family Residential and Associated Single Family Residential	284 parcels	763.797
Vacant Properties	78 parcels	488.832
Preserves, Recreational Facilities, and Open Spaces	16 parcels	17.954
Roads and Utilities	17 parcels	1.387

Table 2.4: Maryfield/Pioneer Character Area Land Use Summary data from WFRC's Land Use Inventory (Wasatch Front Regional Council, 2018c).

Maryfield/Pioneer Character Area - Zoning Summary		
Zone	Frequency	Acres
FR-0.5	3	1.281
FR-1	3	523.640
FR-10	2	194.993
FR-10/zc	2	146.303
FR-2.5	1	0.468
FR-20	4	400.288
FR-5	1	84.490

Table 2.5: Maryfield/Pioneer Character Area Zoning Summary.

Maryfield/Pioneer Character Area Vision Implementation Strategies:

Establish a working group, at EC Metro's discretion, to develop guidelines and standards for new developments that will incorporate principles of open-space design, such as cluster subdivisions and planned-unit developments, where feasible and appropriate.

In adopting ordinances, consider working group recommendations regarding enhanced standards and guidelines for new developments.

Conduct a study of viable local park/open space access interests, needs, and future requirements for existing communities and new subdivisions.

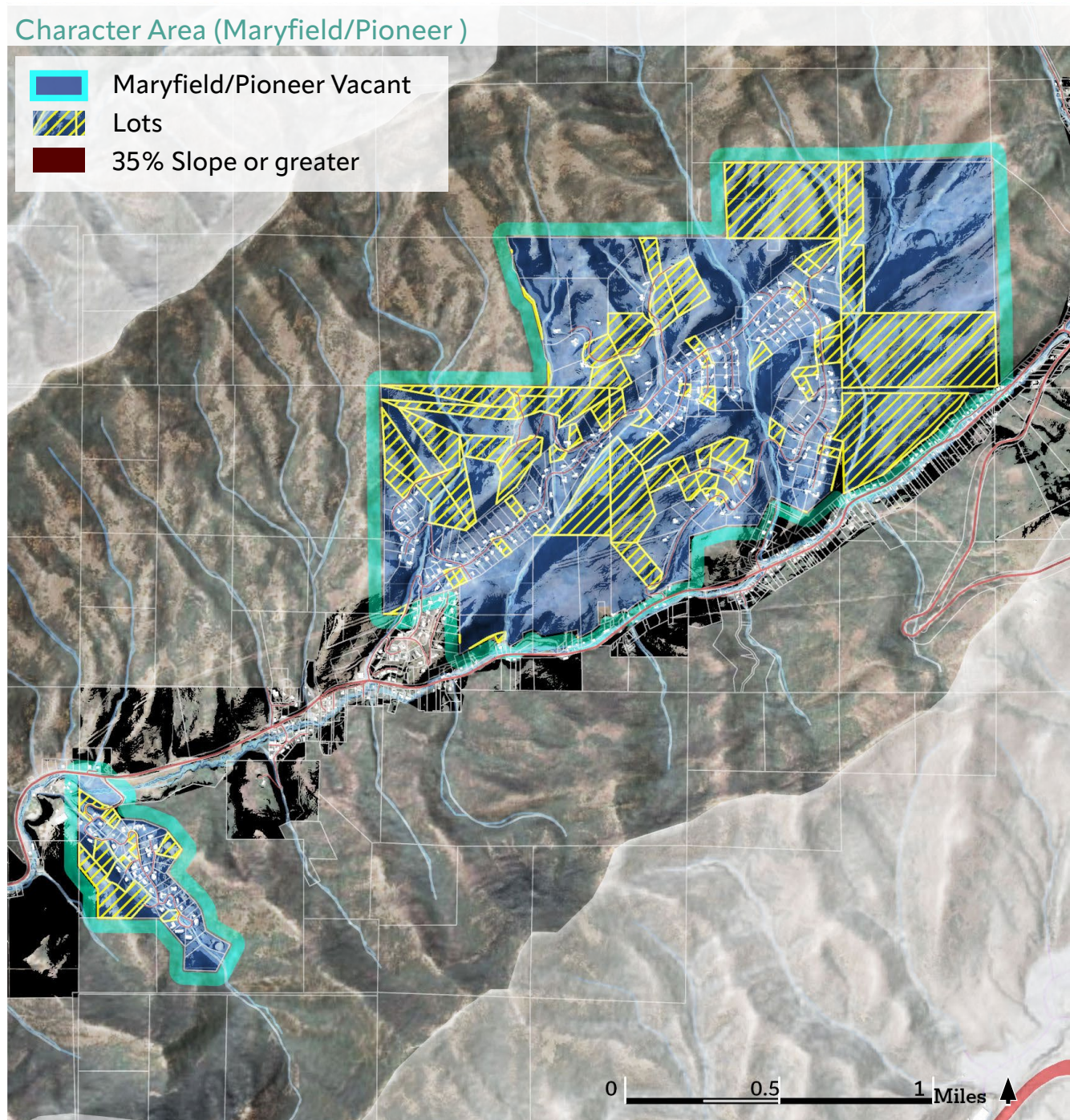


Figure 2.11: Vacant lots and slope constraints in the Maryfield/Pioneer Character Area. According to WFRC's Land Use Inventory (Wasatch Front Regional Council, 2018c), there are 78 vacant lots totaling 488.832 Acres in the Maryfield/Pioneer Character Area. The buildability of some of these lots is limited by a range of constraints, including large proportions of the land that have a greater than 35% slope, as shown in this figure.

Pinecrest/Killyons Character Area

Description:

Pinecrest/Killyons was the first section of Emigration Canyon to be developed, yet it remains the most remote corner of the Canyon. Residents generally take pride in the pioneering spirit of the area, adhere to high environmental standards, and seek the secluded, rugged landscape of the Canyon's most mountainous reaches.

Some important land use features of note in this character area, include the fact that much of the area is covered by a 35 percent slope or greater, making additional building difficult under current FCOZ requirements. Much of Pinecrest/Killyons also falls within

the protected watershed of SLCDPU, which adds another layer of regulation to proposed development in the area. Another land use planning feature of note is that Pinecrest contains many small lots that were legally platted at one time but are non-conforming under current zoning conditions. Some roads preceded current County standards.

Killyons Canyon also includes a valuable open space preserve (269 acres). This pristine property contains rolling meadows, thick forests, and great vistas. It has been a popular outdoor recreation destination for both locals and visitors to the Canyon, and future infrastructure to help manage recreational

use is envisioned for the area .

Descriptions of neighborhoods incorporated into the Pinecrest/Killyons Character Area (see [Appendix J, Figure A](#)) include Killyons, Burr (Burnt) Fork, Pinecrest

Area vision:

Trails and associated infrastructure to facilitate some recreational access to this remote and rugged area are developed and maintained while protecting wildlife habitat/corridors, and maintaining the privacy of the area's residents.

Future zoning considerations: FR-0.5, FR-1, FR-20

Pinecrest/Killyons Character Area – Land Use Summary		
Land Use	Parcels	Acres
Agricultural	21 parcels	53.752
Single Family Residential and Associated Single Family Residential	282 parcels	222.006
Vacant Properties	51 parcels	22.909
Preserves, Recreational Facilities, and Open Spaces	28 parcels	21.079
Roads and Utilities	28 parcels	1.335

Table 2.6: Pinecrest/Killyons Character Area Land Use Summary data from WFRC's Land Use Inventory (Wasatch Front Regional Council, 2018c).

Pinecrest/Killyons Character Area – Zoning Summary		
Zone	Frequency	Acres
FR-0.5	9	27.226
FR-1	1	9.391
FR-20	3	300.508

Table 2.7: Pinecrest/Killyons Character Zoning Summary.

Current Character Area Snapshot:

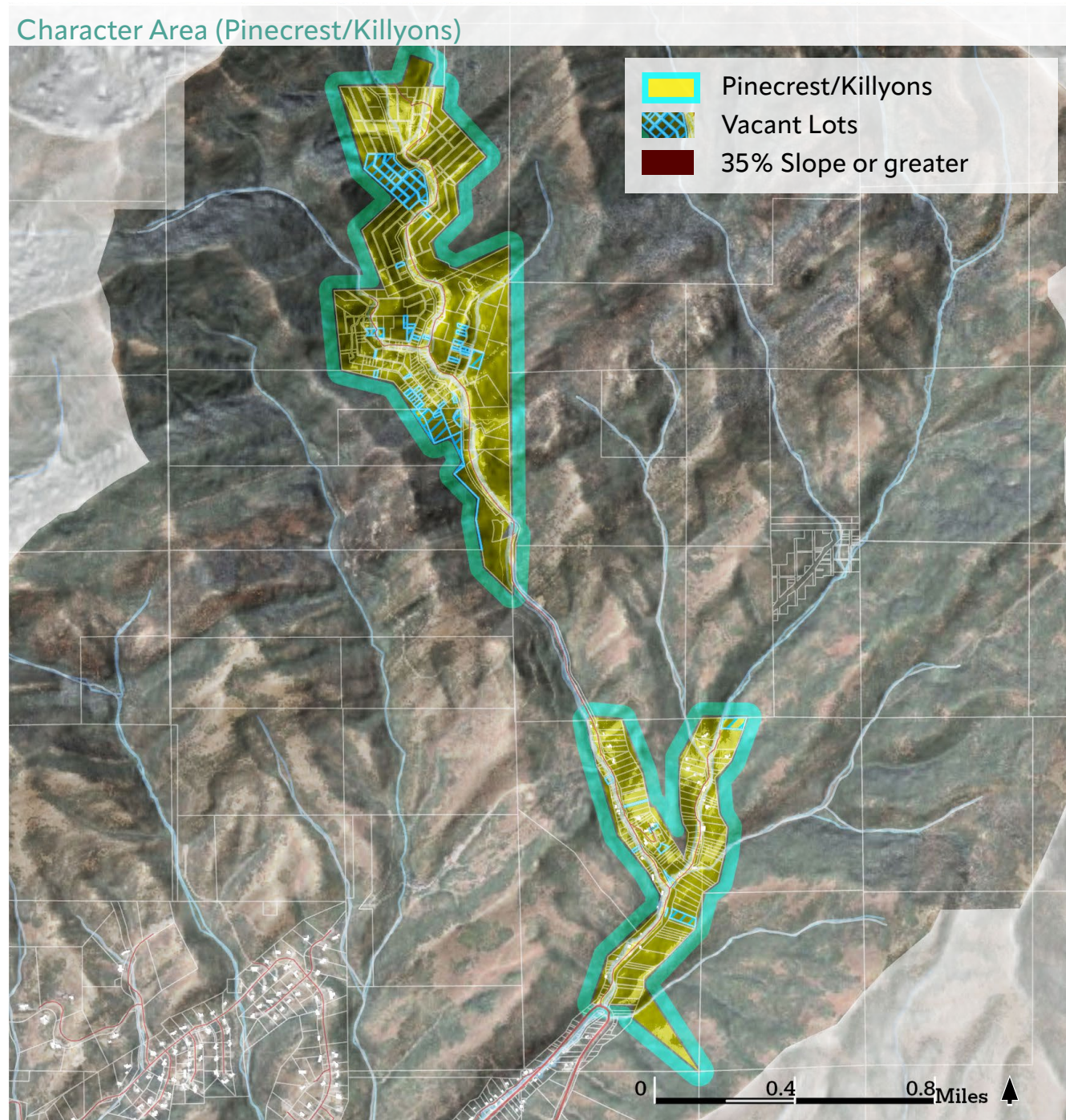
- **Area Acres:** 321.08
- **Dwelling units:** 100
- **Estimated population:** # dwelling units (100) x average household size (2.6) = 260
- **Density:** 100 dwelling units/321.08 acres = .311 du/acre

Pinecrest/Killyons Character Area Vision Implementation Strategies

Support land use and development patterns that incorporate nature, scale, and use into the built environment and increase public awareness and responsibility toward the natural environment.

Establish a working group, at EC Metro's discretion to develop appropriate design guidelines to address relevant safety, sustainability, and resilience issues as needed (e.g. architectural compatibility with surrounding environment, utilization of local and/or sustainable materials and technologies in new construction, natural resource and roadway constraints).

Figure 2.12: Vacant lots and slope constraints in the Pinecrest/Killyons Character Area. According to WFRC's Land Use Inventory (Wasatch Front Regional Council, 2018c), there are 51 vacant lots totaling 22.909 Acres in the Pinecrest/Killyons Character Area. The buildability of many of these lots is extremely limited by a range of constraints, including large proportions of the land that have a greater than 35% slope, as shown in this figure.



Open Space Character Area

Description:

The open spaces, parks, preserves, and trails of Emigration Canyon are considered by many to be among the area’s greatest assets, not only because of the beautiful, often steeply graded and forested landscape, but also because they are home to a diverse range of plants and wildlife. Some of these areas are not accessible by vehicle.

Area vision:

Trails and associated infrastructure to facilitate enhanced recreational access to this remote and rugged area are developed, particularly on publicly owned lands. Where appropriate, lands are maintained for open space, viewshed and wildlife habitat, for the

enjoyment of current and future generations.
 Future zoning considerations: FR-0.5, FR-1, FR-2.5, FR-5, FR-20

Current Character Area Snapshot:

- **Area Acres:** 8,938.625
- **Acres per person:** 8,938.625 acres/ 1,466 people= 6.096 acres/pp
- **Dwelling units:** 61
- **Estimated population:** # dwelling units (61) x average household size (2.6) = 159
- **Density:** 61 dwelling units/8938.625 acres = .007 du/acre

Open Space Character Area Vision Implementation Strategies

Conduct a recreational use study of Emigration Canyon. Include impact of visitation and recreational use by visitors who are not residents.

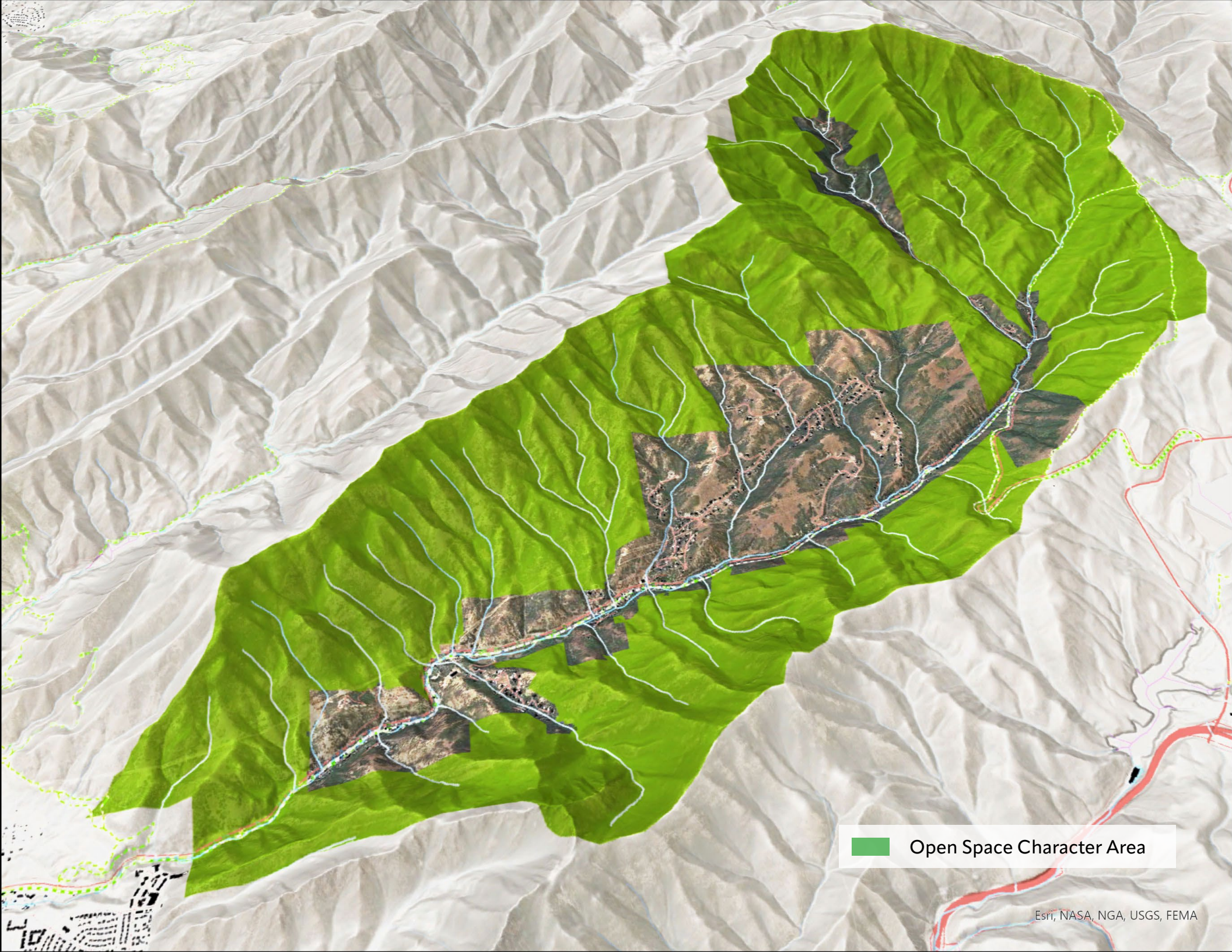
Prepare an open space area plan for Emigration Canyon, including updating existing conservation easements and other ownership and conditions data, coordinating with and possibly connecting to existing regional plans, and identifying areas for preservation that have public benefit for preservation of open space, scenic views, trails, and critical wildlife habitat.

Open Space Character Area – Land Use Summary		
Land Use	Parcels	Acres
Associated Multi-Family Residential	3 parcels	0.063
Government and Institutional	7 parcels	43.125
Agricultural	13 parcels	501.876
Single Family Residential and Associated Single Family Residential	131 parcels	6.063
Vacant Properties	51 parcels	411.072
Preserves, Recreational Facilities, and Open Spaces	143 parcels	7958.854
Roads and Utilities	48 parcels	17.572

Table 2.8: Open Space Character Area Land Use Summary data from WFRC’s Land Use Inventory (Wasatch Front Regional Council, 2018c).

Open Space Character Area – Zoning Summary		
Zone	Frequency	Acres
C-2/zc	1	0.211
FR-0.5	9	1.080
FR-1	1	0.552
FR-2.5	1	0.075
FR-20	3	8958.885
FR-5	2	0.288

Table 2.9: Open Space Character Area Zoning.



Open Space Character Area

2.4 MOVING FORWARD



*“The time to repair the roof is when the sun is shining.”
– John F. Kennedy*

Home in Emigration Canyon. Photo Courtesy of Maridene Alexander.

2.4.1 Land Use Work Program Goals

The following Land Use Work Program Goals were developed with guidance from the GPSC, based on community input, and with consideration for the opportunities, challenges, drivers, and values outlined in this and previous chapters. The work program

can be used to guide the implementation of the General Plan and make progress on Emigration Canyon’s land use goals. The work program outlines goals, objectives, and actions, with the responsible parties, timeline for implementation, approximate cost, metrics for success, and relevant resources also delineated. However, the Emigration Canyon Metro Township Council is the governing

body of the Municipality and will determine how best to achieve the goals, objectives, and actions included in the work plan, including how best to implement recommendations such as the formation of working groups. Details such as possible leads, timelines, costs, metrics, and resources are included to support implementation but are not definitive.

Goal 2.1: Preserve the culture, identity, and character of Emigration Canyon's built environment.

- Objective 2.1.1: Enhance protection of the unique canyon ecosystem and scenery.
- Objective 2.1.2: Improve the safety, sustainability, and resilience of the built environment.

Goal 2.2: Enhance community connectedness and sense of place.

- Objective 2.2.1: Increase connectedness and sense of place within and between character areas.

- Objective 2.2.2: Increase spaces for local community gatherings and recreation.

Goal 2.3: Preserve and enhance ecological features, viewsheds, wildlife corridors, and open space.

- Objective 2.3.1: Improve management of existing open space amenities.
- Objective 2.3.2: Preserve and enhance views of the night sky and protections for nocturnal wildlife.

Goal 2.4: Preserve and enhance existing commercial activities.

- Objective 2.4.1: Increase support for commercial activities that enhance the quality of life of canyon residents and adhere to canyon character and values.



Home in Emigration Canyon. Photo Courtesy of Maridene Alexander.

CHAPTER 3: TRANSPORTATION & MOBILITY

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“With citizen participation, formulated policies might be more realistically grounded in citizen preferences, the public might become more sympathetic evaluators of the tough decisions that government administrators have to make, and the improved support from the public might create a less divisive, combative populace to govern and regulate”

(Irvin & Stansbury, 2004, pg. 55).

Entrance to Emigration Canyon. Photo Courtesy of Maridene Alexander.



3.1 IMPORTANCE OF TRANSPORTATION

Construction Equipment on Emigration Canyon Road. Photo Courtesy of PEC Construction.

While the land use element lays out patterns of uses across Emigration Canyon, the transportation element examines how people access these uses. Transportation involves both mobility – the ability to travel between places – and accessibility – the ability to reach valuable destinations within a reasonable amount of time. For Emigration Canyon residents and visitors, transportation planning is important to uphold a safe, accessible, and enjoyable transportation system that enables all users to meet their needs in the ways that work for them.

3.1.1 State Code

The State of Utah requires communities to plan for transportation. In Utah State Code

Section 10-9a-403, the State mandates that General Plans include a “transportation and traffic circulation element” (Municipal Land Use, Development, and Management Act, 2020). This element must contain the location of different road types as well as public and active transportation infrastructure, and it must connect to demographic projections and the Land Use element. Communities without a major transit investment corridor – such as Emigration Canyon – must plan for improved linkages among housing, employment, education, recreation, and commerce.

3.1.2 Relationships, Roles & Responsibilities

Broad thinking strengthens transportation

planning and connectivity. Several entities and agencies’ transportation values and plans are therefore important to consider in relation to Emigration Canyon’s local efforts. These include the Utah Department of Transportation, the Utah Transit Authority, the Greater Salt Lake Municipal Services District, Salt Lake County, and Salt Lake City.

Utah Department of Transportation

The Utah Department of Transportation (UDOT) “aim[s] to Keep Utah Moving. That includes everything from improving our roads and traffic signal timing to providing alternate means of getting from A to B, like bike lanes and public transit. We want to

make sure that whatever is being moved, freight and cargo or the people in a vehicle, arrives safe and promptly. It isn't easy, but Keeping Utah Moving is what keeps UDOT going" (Utah Department of Transportation, 2020). To complete these objectives, UDOT uses the core values depicted below (Figure 3.1). Emigration Canyon representatives may work with UDOT regarding any non-local roads adjacent to Emigration Canyon's boundaries (e.g. US 65, which influences traffic in Emigration Canyon). Additionally, UDOT has an Active Transportation Division that can support Emigration Canyon's initiatives regarding walking and biking.

Utah Transit Authority (UTA)

Utah Transit Authority (UTA) "provides integrated mobility solutions to service life's connections, improve public health and enhance quality of life"; they "provide an integrated system of innovative, accessible and efficient public transportation services that increase access to opportunities and contribute to a healthy environment for the people of the Wasatch region" (Utah Transit Authority, 2020). Currently, there are no public transit routes in Emigration Canyon other than the Granite School District's school bus route. However, any future efforts to explore public transit options will necessitate coordination with UTA regarding public transit options. Communicating feedback about possible route pathways, infrastructure conditions, and frequency of stops can be a useful way to engage UTA.

Wasatch Front Regional Council (WFRC)

The Wasatch Front Regional Council (WFRC) is the Metropolitan Planning Organization (MPO) that covers Box Elder, Davis, Morgan, Salt Lake, Tooele, and Weber counties. The responsibilities of the WFRC include regional transportation planning. Their current plan, Wasatch Choice 2050 (<https://wfrc.org/vision-plans/wasatch-choice-2050/>), establishes a range of goals related to transportation (Figure 3.2). The MSD works with the WFRC on regional initiatives involving various municipalities. WFRC provides funding for various types of transportation projects, for which Emigration Canyon is eligible.

Salt Lake County Public Works Engineering

Salt Lake County Public Works Engineering Department (Engineering) provides engineering services to the Greater Salt Lake Municipal Services District (MSD), including Emigration Canyon. As part of these services, Public Works Engineering helps to build and maintain roadways; administer encroachment, excavation and special event permits; and enforce stormwater (MS4) management compliance. Unincorporated Salt Lake County areas surround Emigration Canyon on all sides except for the western entrance to the canyon, which abuts Salt Lake City.



Figure 3.1: UDOT core values (Utah Department of Transportation, 2020).

Salt Lake City (SLC)

Salt Lake City (SLC) abuts Emigration Canyon at the western end of the canyon (see Figure 1.1 for boundaries). Traffic to and from SLC affects the canyon, especially on weekends when visitor numbers tend to increase. To manage this use, coordination is needed on issues that involve the main canyon road (Emigration Canyon Road) such as striping, signage, and active transportation treatments.

Greater Salt Lake Municipal Services District (MSD)

The Greater Salt Lake Municipal Services District (MSD) provides planning and development services for Emigration Canyon, including this General Plan. The MSD will continue working with the Emigration Canyon community and relevant partners from around the County, Region, and State

to coordinate and implement transportation projects and programs identified in this chapter.

3.1.3 Community Input

This General Plan was developed using a participatory approach that engaged members of the Emigration Canyon community in planning for the future of the Municipality. Details on this process are provided in section 1.4. As part of the community input process, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis (Figure 1.5) and an Achieve, Preserve, Avoid, and Eliminate (APAE) analysis (Figure 1.6) was conducted by the GPSC. These analyses highlighted many subjects relevant to this Transportation element. A summary of key results are described in the two subsections that follow. Key transportation-related results from a workshop and a survey are described in the third subsection.

SWOT Analysis (Transportation)

The GPSC SWOT analysis identified transportation and mobility strengths of Emigration Canyon such as the rural mountain feel and the access to hiking, biking, and other outdoor recreation activities. Weaknesses included high traffic volumes, road maintenance, timely snow removal, and poor parking options. The only opportunity identified that was specifically related to transportation and mobility was buying land at trailheads for parking, although several others were peripherally related (e.g. easement to protect open land for public relates to access, which is connected to transportation and mobility issues). Threats from traffic/speed violations and high traffic volumes were the major transportation-related concerns raised.



Figure 3.2: Wasatch Choice 2050 goals (Wasatch Front Regional Council, 2019e).

APAE Analysis (Transportation)

The GPSC APAE analysis identified many transportation and mobility issues and possible ways forward relevant for Emigration Canyon. In terms of things to be achieved, many items focused on road safety improvements and/or trails access and infrastructure improvements such as the establishment of restroom facilities to accommodate the many recreational users in the area, as well as a connected trails system and associated parking. Transportation and mobility characteristics that were identified as needing to be preserved included rural character areas around Emigration Canyon and the recreational character and value associated with the area. Items to be avoided included parking issues, increased traffic, overuse of concrete barriers on the road, and over development (as it relates to increased traffic volumes). Transportation and mobility items that were identified as needing to be eliminated included noise pollution, off-roading, the pull off at the mouth of the Canyon, and uncontrolled growth/development, which would presumably increase traffic.

Workshop and survey results

Representatives from Emigration Canyon participated in a workshop to identify high-level transportation values that might be relevant to the Canyon community. For details see Transportation Planning Values box, page 64, section 1.4, and Appendix B.

A Transportation and Land Use Survey was also disseminated to Emigration Canyon residents to get a better idea of the specific values, needs, and concerns associated with the area (for details see section 1.4 and Appendix C). Key transportation and mobility-related concerns identified by survey respondents included that all 97 survey respondents agreed that “Inadequate maintenance of existing infrastructure” was either “very important” or “important” in terms of transportation concerns associated with Emigration Canyon. This was followed closely by “Inadequate bicycle and/or pedestrian infrastructure (e.g. sidewalks, bike lanes)” with 97 percent of respondents indicating that this topic was either “very important” or “important”, and “Unsafe travel” supported by 94 percent of respondents. For a complete list of transportation concerns, see Figure 3.4.



Share the Road. Photo courtesy of Scott Winterton, Deseret News, July 2012

3.2 Transportation Planning Values

To be the most effective, values-based frameworks benefit from being tailored to reflect local values and needs. In January 2020, five representatives from Emigration Canyon participated in a Transportation Planning Values and Principles workshop along with other representatives from MSD-member communities. Emigration Canyon accounted for just under 16 percent of workshop attendees. At this workshop, 32 members of MSD-community Planning Commissions, Councils, General Plan Steering Committees, and several involved members of the public developed a list of transportation

values broadly applicable across the MSD (see section 1.4.3 and Appendix B).

Although the order of value prioritization will vary for Emigration Canyon, the list shown in Figure 3.1 captures a general suite of values that can help to broadly guide transportation decision making in Emigration Canyon. These values are ultimately linked to outcomes and performance indicators or metrics in the Community Work Program included at the end of this chapter and in Chapter 7. By evaluating these indicators, planners and decision makers can ensure that planning decisions are progressing the values held

broadly by MSD member communities, and by the residents of Emigration Canyon in particular.

Some additional transportation-related concerns raised by survey respondents as a write-in option included:

- Wildfire threats in the canyon are exacerbated by traffic congestion and overuse/abuse by visitors
- Better enforcement of the existing noise ordinance will also reduce speeding/accidents and improve quality of life in the canyon

The top transportation values generated at this workshop included (see Figure 3.3 for a complete list of the top values):

- Clean air
- Safe, user friendly streets for all types of users
- Aligning local and regional needs
- Ongoing engagement of stakeholders in local decision making
- Commitment to an outcomes-based approach to planning, design, and engineering
- Good health (of individuals and communities, mental and physical).

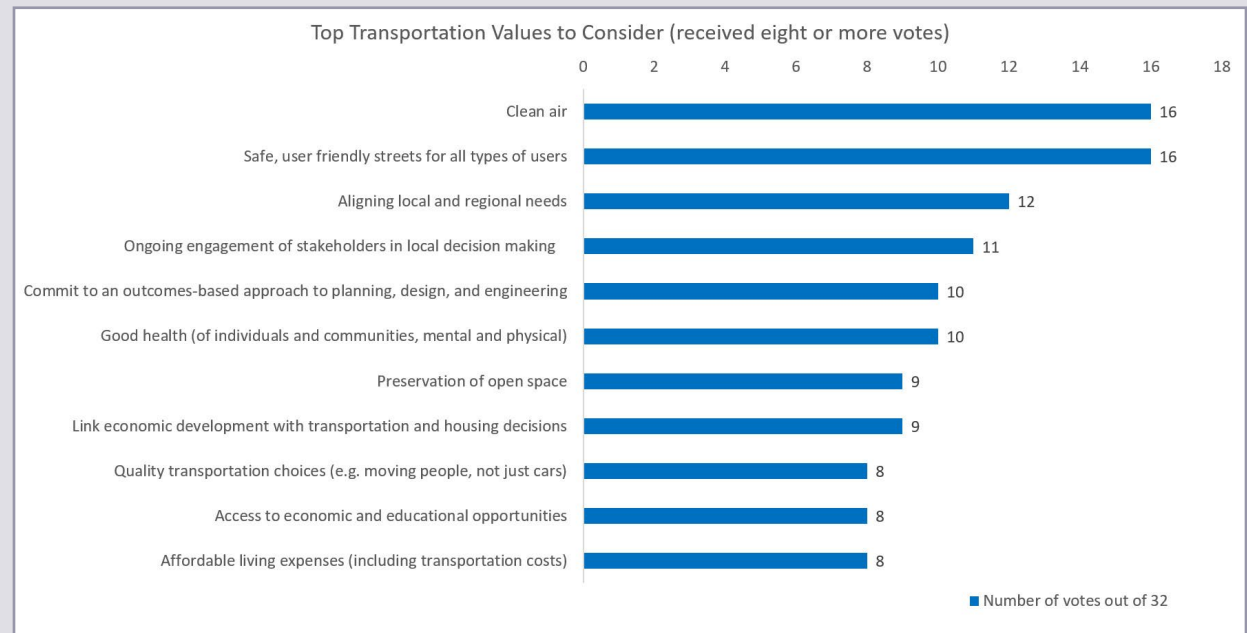


Figure 3.3: Top transportation values identified by participants at Transportation Planning Workshop (for details see section 1.4 and Appendix B).

- Shortage of culinary water is a major concern - Some areas are just not suitable for increased development or mass transit

These results inform the goals, objectives, and actions that follow in the Community Work Program at the end of the chapter and in Chapter 7.

Transportation and mobility-related solutions posed by survey participants

Many survey respondents wrote additional comments regarding transportation and mobility issues in Emigration Canyon. Respondents most often described safety, maintenance, and/or noise concerns regarding

the heavily utilized active transportation corridor of Emigration Canyon Road. Some also offered possible creative solutions to these issues, including:

- Install a toll for non-resident traffic, use the funds raised to build a safe bike trail off the road
- Install a pickup option for package delivery near the mouth of the canyon
- Stop home garbage collection in Pinecrest (too narrow, use dumpsters instead)
- Close off some streets at certain times for pedestrian/bike access only

- Well-timed/coordinated public transportation and/or ride share options
- 2-way bicycle use with vehicular traffic deferential to bicyclists – this is done effectively in Europe, would slow traffic, and prioritize use of the road by those who keep the air clean
- Develop the main canyon road as an Historic Byway
- Better internet capability would mean less commuting

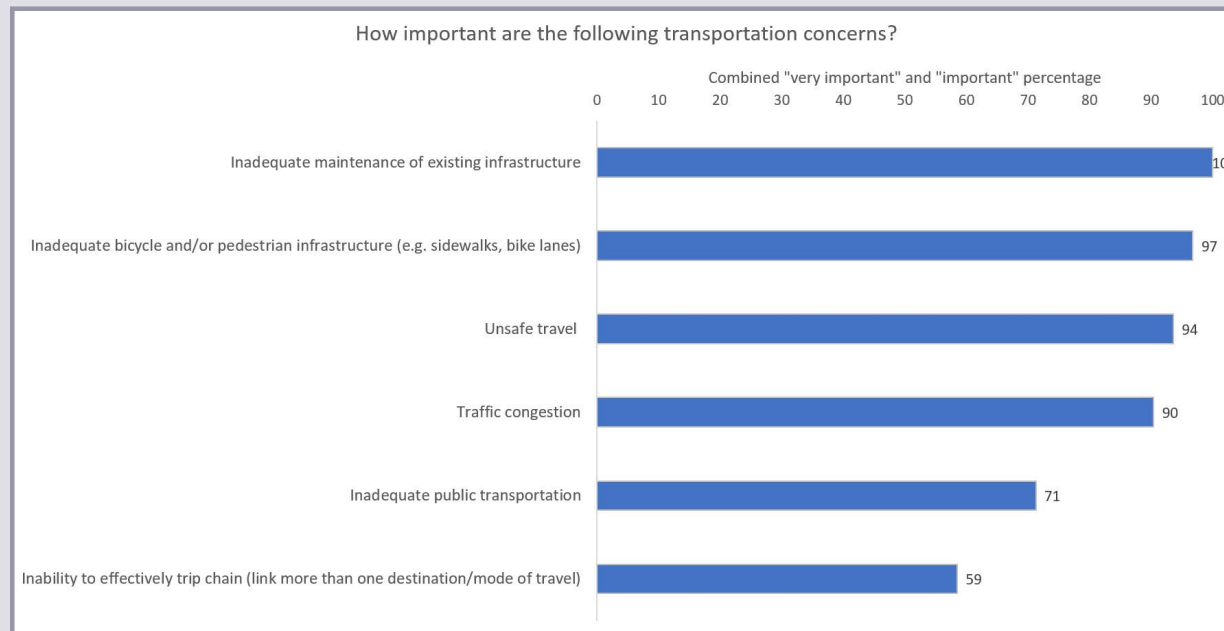


Figure 3.4: Transportation concerns marked as either "very important" or "important" by percentage of survey respondents.



Above: Participants at the Transportation Values and Principles Workshop, January 30, 2020. Photo courtesy of MSD Long Range Planning.



3.3 EXISTING CONDITIONS

Emigration Canyon is a quiet, mostly residential community located a mere 10-minute drive from the Salt Lake City downtown and even closer to the University of Utah. The community is situated in a peaceful, beautiful natural environment. The road leading into the canyon has a mild grade, and is very popular with cyclists and hikers.

Homes dotting the hillside in Emigration Canyon. Photo Courtesy of Maridene Alexander.

3.3.1 Street Network

Emigration Canyon attracts various users—cyclists of differing skill levels; commuting motorists from within and out of the canyon who are familiar with the corridor; school

buses; visitors who are unfamiliar with the corridor; and pedestrians, runners, long boarders and in-line skaters. This variety of motorists and active transportation users results in myriad opinions on how the corridor should be used, what problems or needs exist,

and how best to address such issues. The canyon is also used by non-canyon residents as an alternative route between SLC and Summit County, which adds to the safety concerns associated with the main canyon road (Emigration Canyon Road).

Transportation and Traffic Circulation

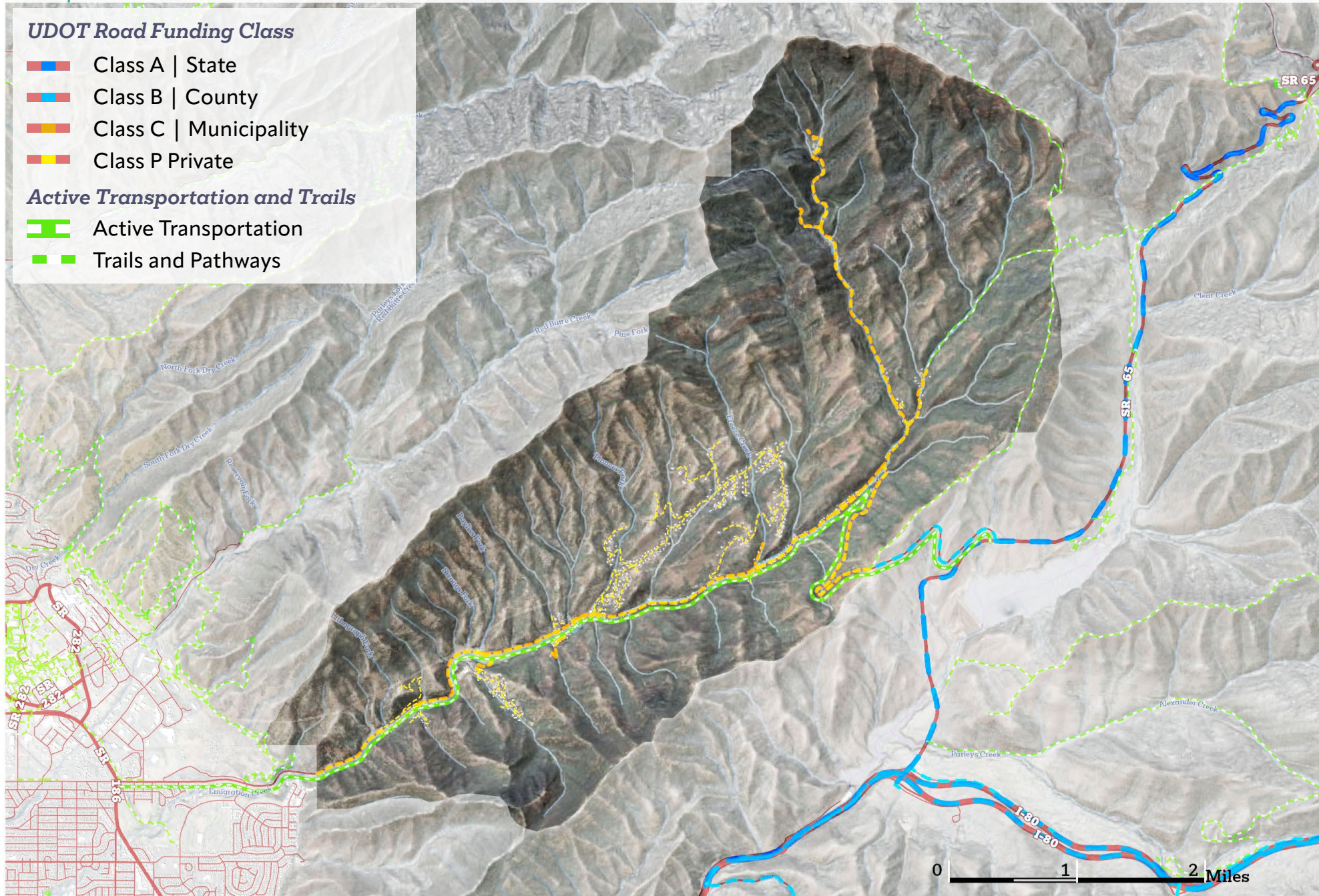


Figure 3.5: Emigration Canyon Transportation and Traffic Circulation Map.

3.3.2 Street Classification

The functional classification of streets describes the grouping of streets or highways into ‘classes’ based on the character of service they are intended to provide (Federal

Highway Administration, 2000). This classification is important for understanding how roads in a network relate to one another. There are three functional classes of streets in Emigration Canyon. These are labeled in

Figure 3.5, and each class type is described in more detail in Table 3.1. Note that there are no freeways or expressways running through the Municipality.


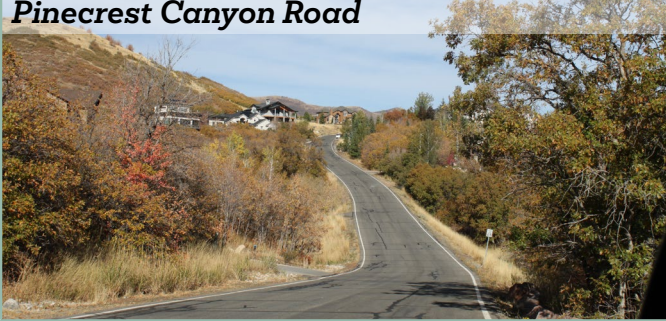
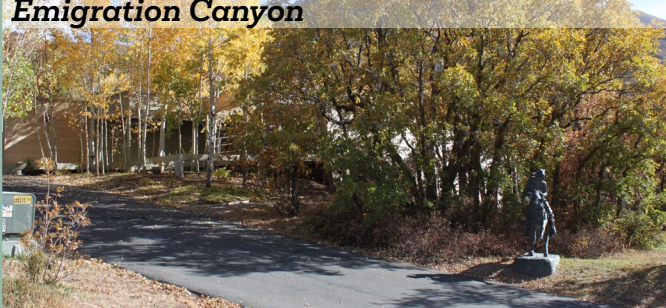
Functional Classification	Streets in Classification	Description
Arterial	<p>Emigration Canyon Road</p> 	<p>Arterials serve a high level of mobility, providing fast flowing through-traffic movement but with low level land-access service. These streets typically provide the most direct route from A to B not only for vehicles but for pedestrians and bicyclists as well.</p>
Collector	<p>Pioneer Fork Road, Pinecrest Canyon Road</p> 	<p>Collectors balance both through-traffic and land-access functions. Collectors are used for shorter trips requiring increased access to destinations and can offer greater comfort and route choice for bicyclists because of the lower vehicle speeds and numerous access options for destinations.</p>
Local Roads	<p>All other roads in Emigration Canyon</p> 	<p>Local roads primarily serve land-access functions. Local road design and control facilitates the movement of vehicles onto and off the street system from land parcels. Through movement is difficult and is discouraged by both the design and control of this facility. This level of street network is likely to provide the highest level of comfort to the greatest number of bicyclists and pedestrians. Local roads will have the lowest speeds and be mostly absent of large vehicles.</p>

Table 3.1: Functional classes of streets in Emigration Canyon.

3.3.3 Traffic Volume and Safety

Traffic accidents on Emigration Canyon Road, especially among different mode users (e.g. single occupancy vehicle drivers and bicyclists) have been a defining feature of the canyon transportation and mobility system for many years now (Figure 3.6). Obscured or obstructed access to the road from sharp turns, short drives, or garages at various points throughout the canyon can also contribute to safety issues.

A gradual increase in canyon traffic has occurred over time (Wasatch Front Regional Council, 2018b), adding to safety concerns. The most recent Annual Average Daily Traffic (AADT) counts from 2017 have increased over previous years' counts by at least 100 vehicles per day at all count locations (Table 3.2). This increase has generally kept pace with the growth of the residential population in the canyon, but anecdotal evidence suggests that more traffic traveling from Salt Lake City to Park City may also be using Emigration Canyon as an alternate route to avoid heavy traffic on Foothill Drive where it intersects Interstate 80. Noise pollution from this steady traffic has become an added nuisance, particularly for canyon residents who live adjacent to Emigration Canyon Road.

Top photo: Emigration Canyon Road, courtesy of PEC Engineering.

Middle photo: Residential Road in Emigration Canyon, Photo Courtesy of Maridene Alexander.

Bottom photo: Residential Road in Emigration Canyon, Photo Courtesy of Maridene Alexander.

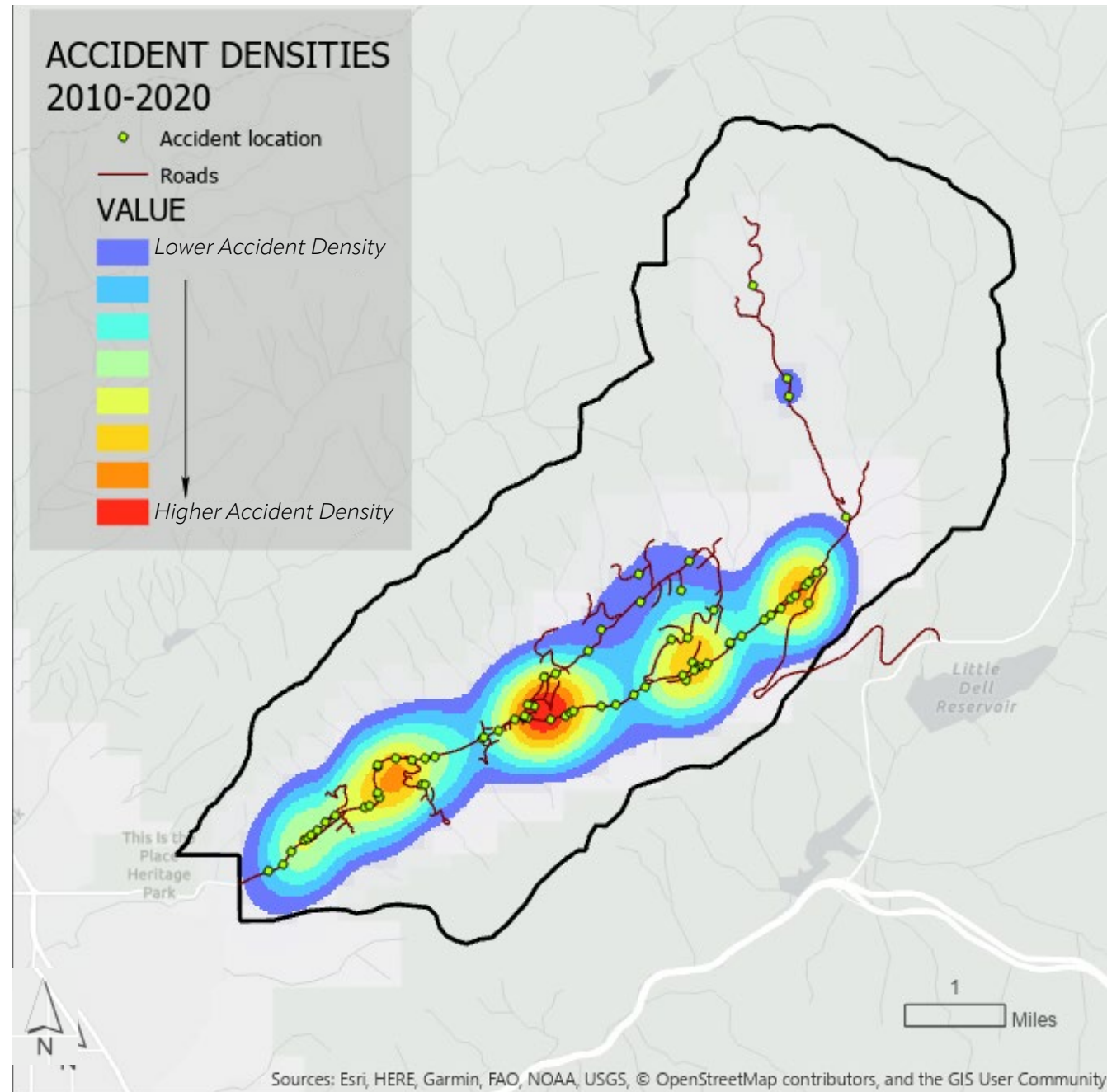


Figure 3.6: Accident data for Emigration Canyon from 2010-2020 reveals the highest density of accidents is at the intersection between Emigration Canyon Road and Pioneer Fork (out of 116 total incidents reported in that time). The focus of accidents in this area is consistent with previous work (Lochner, 2016, Fig. 3).

Traffic from cyclists is at least as concerning for canyon residents as traffic from vehicles. Today Emigration Canyon is one of the top destinations for cyclists in Utah, with more than 1,300 bike trips daily (Lochner, 2016), but the popularity of this activity has created “share the road” issues. Given the increasing use of the canyon over the years, the physical parameters of the canyon and the canyon road, natural hazards (e.g. loose rocks, drainage issues, visibility), and the lack of consistent recreational bicycle lanes in some areas where the canyon is too narrow to make them feasible; the conflicts between bicycles and motor vehicles has been of increasing concern to residents and recreational users alike.

3.3.4 Commuting Patterns

Most of the employed population of Emigration Canyon commute to jobs outside of the Canyon, with over 95 percent of working population employed in other locations in 2017 (Figure 3.7). In that year, only nineteen people (3.7 percent) lived and worked in Emigration Canyon (OntheMap

Data, 2017; Appendix D).

Table 3.3 shows how these residents commute to and from their place of work. In 2018, 76.3 percent of residents drove alone to their job. This was an increase from the percentage of people driving alone in 2010. A similar number was also reflected in the data provided by the 97 people from Emigration Canyon who responded to the Transportation and Land Use survey (Appendix C).

Currently, there are no public transit routes in Emigration Canyon, nor have any been planned for the area in the near future (Wasatch Front Regional Council, 2019d). Granite School District’s public school bus route is the only public transit in the Canyon (for current information see <https://www.graniteschools.org/transportation/>).

Because people living in the Canyon commute to jobs elsewhere in Salt Lake County, overwhelmingly in single occupancy vehicles, there are implications for air quality, road infrastructure, and housing demand (for more detail on this topic see Appendix D).

Arterial Highway Section	Annual average daily traffic (AADT) count
From E Sunnyside Ave to E Sunnysdale Ln	4,200
From E Sunnysdale Ln to Perkins Hollow	4,000
From Perkins Hollow to N Pinecrest Canyon Road	3,500
From N Emigration Canyon Road to 65	5,000

Table 3.2: 2017 AADT Data retrieved from UDOT. Source: Esri Community Maps Contributors, County of Salt Lake, Utah AGRC, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA.

3.3.5 Active Transportation

Emigration Canyon Road is popular with active transportation users and has the potential to be a top tier destination for them (see Figure 3.5 showing active transportation corridor). The allure of sweeping views, mild canyon grades, and proximity to downtown Salt Lake City has not escaped the attention of a growing number of cyclists and runners, but some substantial adjustments to the road are needed to improve safety for these diverse users. Sidewalks are non-existent in the canyon, as are other standard urban infrastructure such as streetlights, benches and restrooms. Infrastructure hazards including unstable slopes, encroaching residential structures, tight shoulders, and canyon curves bring design challenges that urban bike design guides like NACTO and AASHTO do not address.

A facilitated collaborative planning effort to address many of these challenges was undertaken in 2014 by the Emigration Canyon Roadway Improvement Committee (ECRIC), a group formed under the previous planning authority at Salt Lake County. Safety within a mixed-use corridor was the overarching consideration. The committee developed a range of recommendations for immediate action, including 79 specific roadway improvements (Lochner, 2016). An evaluation of the engineering deficiencies throughout the canyon, proposed costs for solutions recommended by the ECRIC, and additional engineering analysis were conducted following the release of these

recommendations and compiled into the Lochner report (2016). A summary of the findings from this report are included in the Next Steps section (Table 3.4).

3.3.6 Trails

Emigration Canyon is a natural playground for outdoor enthusiasts, but there is very little infrastructure such as parking, bathrooms, or even maintained trails to support these activities. While some informal trails exist in the canyon, these are mostly very rough and are not maintained or monitored. This means that excessive use by visitors can lead to erosion, property damage and pollution. A Trails Master Plan was adopted in 2007 to address many of these concerns, but little has been implemented since the adoption of the plan (Emigration Canyon Community Council, 2019; Salt Lake County Parks and Recreation, 2007). More details on trails are included in the land use section of this general plan, and in Appendix H and I.

3.3.7 Accessibility

Accessibility is a measure of how many destinations can be reached within a reasonable distance. The WFRC measures job accessibility by automobiles and by transit for much of the Wasatch Front, but does not include Emigration Canyon in the analysis (for details see Wasatch Front Regional Council, 2019a). However, even without this detailed analysis it is clear that residents of Emigration Canyon are largely dependent on the automobile or alternative transportation in order to access opportunities and amenities such as jobs, schools, grocery stores, health care facilities, and goods and services, due to the absence of transit and diverse land uses in the Canyon. On the other hand, canyon residents enjoy excellent access to open space and parks via both automobile and alternative transportation, though again not via transit. Accessibility is best where there is a mix of land uses at the neighborhood scale, good street connectivity, and a safe walking environment; these measures are unlikely to change in any substantial way in the near future for Emigration Canyon.

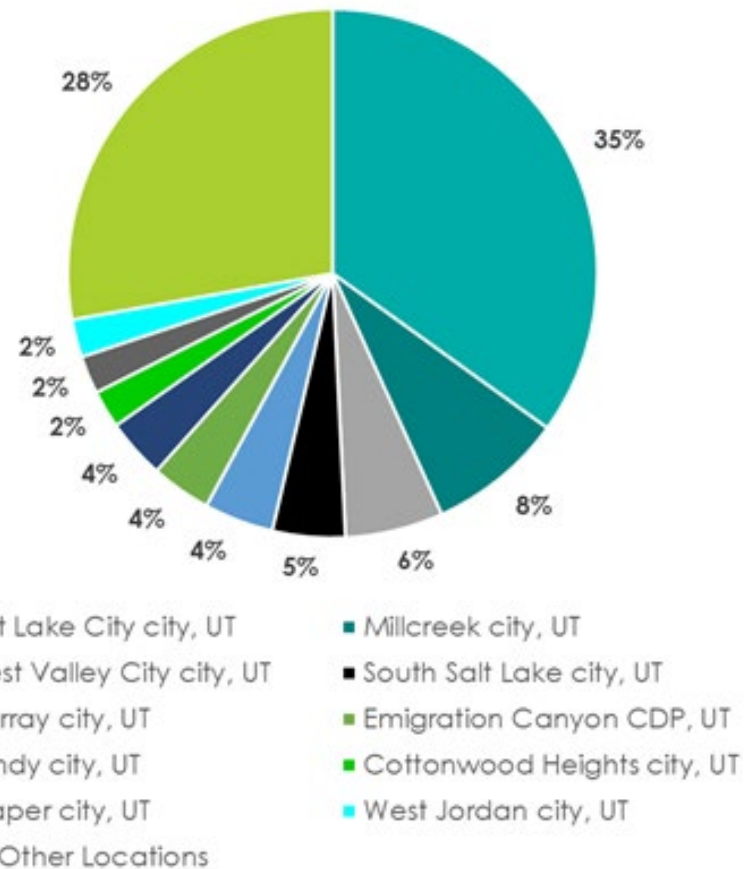


Figure 3.7: Share of Emigration Canyon residents employed by location. Source: OntheMap Data, 2017.

Table 3.3: Commuting Modes

Method	Emigration Canyon		Salt Lake City	Salt Lake Co	Utah
	2010	2018		2018	
Car, truck, or van - drove alone	73.5%	76.3%	67.5%	74.9%	76.0%
Car, truck, or van - carpooled	12.1%	5.4%	11.0%	11.5%	11.2%
Public transportation (excluding taxicab)	0.0%	0.0%	7.1%	3.8%	2.5%
Walked	2.4%	3.5%	5.5%	2.3%	2.5%
Bicycle	2.4%	4.8%	2.5%	0.8%	0.7%
Taxicab, motorcycle, bicycle, or other means	4.5%	3.5%	1.4%	0.9%	1.0%
Worked at home	5.1%	6.4%	5.1%	5.9%	6.2%

Source: U.S. Census Bureau ACS 5-Year Estimates 2010 and 2018 (S0801)



3.4 LOOKING AHEAD

“It’s better to look ahead and prepare than to look back and regret.”

- Jackie Joyner-Kersey

Deer Crossing the road. Photo Courtesy of Maridene Alexander.

3.4.1 Future Projections

Over the last ten years, traffic in Emigration Canyon has steadily increased across almost all road segments (Wasatch Front Regional Council, 2018b), as has the population living in the Canyon (Esri, 2020). Population projections for the canyon show a possible increase from around 1,800 people in 2020

to around 3,000 people in 2050 (for details see Appendix D). While traffic volume on the Emigration Canyon Road is likely to continue to keep pace with regional growth, Emigration Canyon’s population will likely stabilize before 2050 due to constraints on residential population growth such as 1) limited remaining buildable areas and 2)

water-related restrictions (see Chapter 2 for more details). Because of these factors, the future we are planning for revolves around only slight population growth within the Canyon itself, as well as enhanced use of the area by visitors.

Annual average daily traffic (AADT) forecasts for Emigration Canyon Road project an

increase of between 1000 to 5000 vehicles, reaching a high of approximately 9,700 by 2050. The the upper and lower sections of the road see greater increases in traffic. This is largely attributable to visitors accessing recreation resources. Within the more residential section an increase of 0 to 1000 vehicles is projected reaching up to 4,400 by 2050 (Figure 3.8).

The WFRC identified Emigration Canyon Road in their Future Active Transportation Network (Wasatch Front Regional Council, 2019b). However, there are no additional transit improvements outlined for the area (Wasatch Front Regional Council, 2019d). Should lower sections of Parley’s canyon become obstructed or closed, Emigration Canyon Road is the only alternative traffic route for I-80. A coordinated effort between the Township, WFRC, UDOT, and SLCo is recommended to ensure the road is designed and maintained at a standard that ensures it is capable of fulfilling this potentially vital role.

Despite the relative stability projected for Emigration Canyon, if the population does continue to grow even slightly, a shift away from driving alone would help to reduce pressures on Emigration Canyon Road, especially during popular commute times. This trend could also help to reduce harmful emissions that contribute to poor air quality, a major concern in the Salt Lake Valley (Maffly, 2020) and one of the highest scoring issues for canyon residents (Appendix C). To address these concerns, efforts should be made now

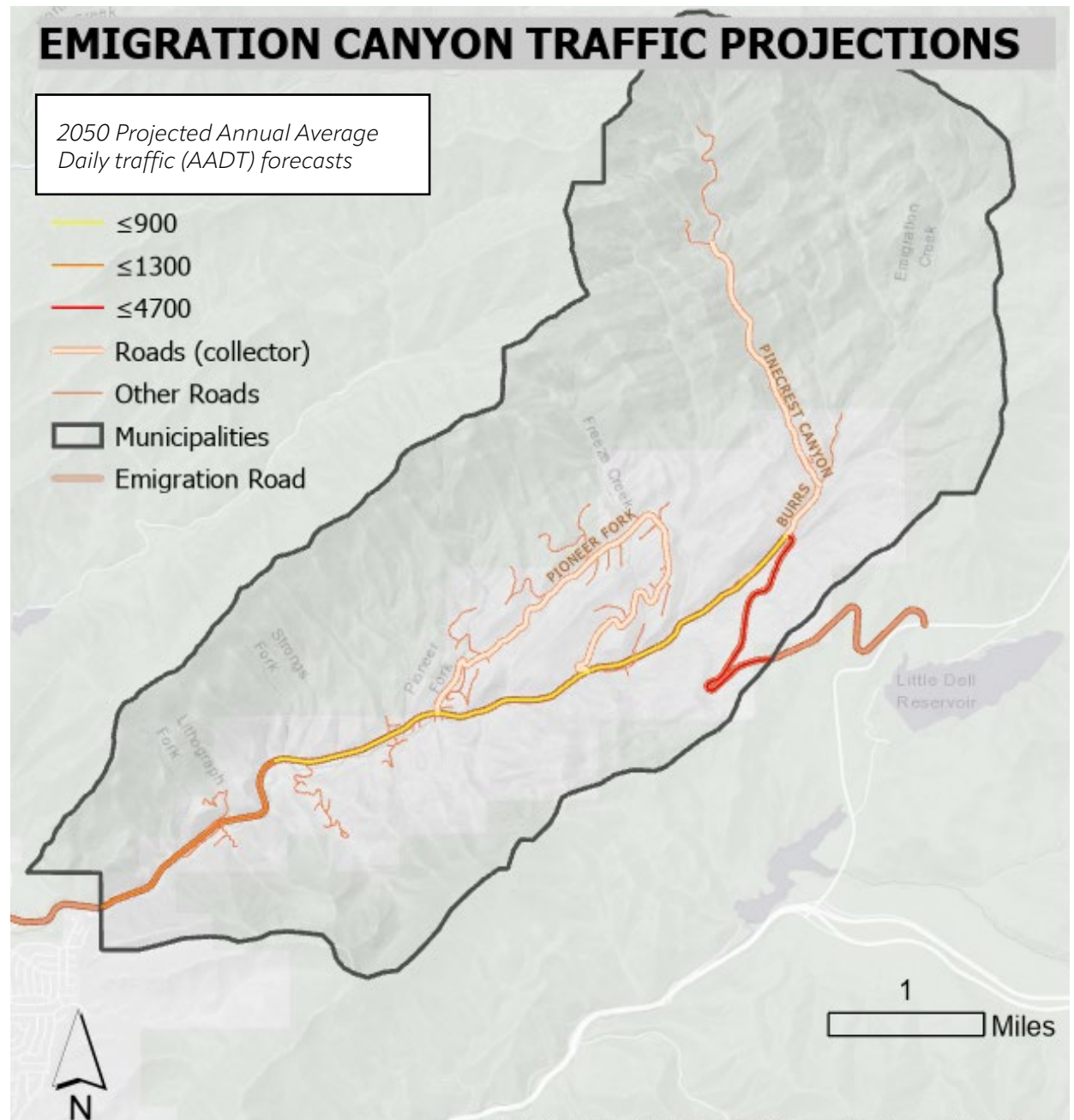


Figure 3.8: Emigration Canyon Traffic Growth Projections 2017 to 2050. Source: (Wasatch Front Regional Council, 2018b).

to enhance telecommuting access for canyon residents, as well as to support appropriate small-scale increases in economic opportunities located within the canyon itself, although these opportunities are unlikely to be primarily brick and mortar businesses (see Chapter 4 for details).

3.4.2 Next Steps: Roadway Improvements

In the summer of 2020, a paving project was undertaken to upgrade Emigration Canyon Road. This project implemented several of the recommendations made by Lochner, 2016 (Table 3.7). Other work in line with these recommendations is planned as funding becomes available.



Table 3.7: Summary of Lochner 2016 findings, recommendations, and progress		
Proposed improvement	Expected outcome	2020 progress towards outcome
Roadway infrastructure improvements including slope stability and pilot striping concepts.	Promote respect among all road users and lessen the severity of obstacles.	Engineering is applying for funding for slope stability projects.
Reduce speed limit to 30 mph in the stretch of roadway from Margarethe to Pinecrest (upper canyon).	Reduce hazards associated with this segment of road, which has narrow shoulders, unstable slopes, tight curves, and a high accident history.	Conducting speed studies to see if/where reductions would be plausible.
Implement solar VMS speed playback signage, flashing beacons, or high visibility flags over the reduced speed signage.	Reduce hazards associated with this segment of road, which has narrow shoulders, unstable slopes, tight curves, and a high accident history.	Under consideration.
Choke-point signing and striping: custom signage to promote awareness, striping to mitigate safety hazards. <i>Dots to represent narrow areas for both cyclists and motor vehicles.</i>	Reduce hazards for bicycles and vehicles.	The section in <i>italics</i> was not implemented as it was deemed a litigation risk to not follow standard striping. All other improvements implemented.
Future roadway widening: 11-foot travel lanes, 1-foot buffer and 40foot cycles lanes.	Reduce hazards for bicycles and vehicles.	11 -foot lanes and 5-foot bicycle lanes were installed where road width allowed.
Add a bicycle counter to lower canyon.	Provide data to help when applying for road improvement/maintenance funding.	Engineering has counted cars and used Strava data for bicycles.

3.4.3 Next Steps: Trail Development

The forecast is for Salt Lake Valley's population to grow from 1.1 million in 2015 to 1.7 million in 2050 (Kem C. Gardner Policy Institute, 2016) This suggests that all outdoor recreational resources will be heavily used – and those that are underdeveloped may suffer the most. Emigration Canyon needs to begin building a trails network designed and constructed to withstand the increased visitor pressures, and to protect its existing natural resources. A Trails Master Plan was developed by the community and adopted by Salt Lake County in 2007, but never implemented (Salt Lake County Parks and Recreation, 2007; Appendix H). In 2019, the Municipality reviewed that plan to identify a core set of trails and associated facilities that might be built relatively quickly, establishing a base for ongoing development (Emigration Canyon Community Council, 2019; Appendix I).

Key recommendations from this assessment are outlined below. Additional details can be found in Appendix I.

Key Trail Development Recommendations

Focus on establishing two main regional trailheads and improving signage at local trailheads

- Canyon Mouth Regional Trailhead
- Little Mountain Summit Regional Trailhead

Focus on creating/modifying two - three trails

- South Slope Regional Trail and the return loop (both together)
- East Slope Regional Trail and the 2nd return loop (both together)

Minor restoration of the Killyons Trail (eroded sections)

Partner with Salt Lake City Parks on the Canyon Mouth Regional Trailhead and associated trails

Develop a comprehensive trails management plan that provides for:

- Trail and trailhead facility maintenance
- Public education and signage
- Compliance with use and access restrictions in surrounding areas (Little Dell Watershed, Red Butte)
- Public safety monitoring and enforcement
- User impact mitigation, especially for private property owners who voluntarily allow public access

Funding plan – EC Metro, Non-profit, etc

Continue to pursue 2007 plan goals.

While only a small subset of the plan's proposed trails/trailheads are feasible for near-term implementation, others may eventually be realized if the Municipality pursues them with patience, persistence, and flexibility.



*Early fall, Freeze Creek.
Photo Courtesy of
Catherine Harris.*

3.4.4 Transportation and Mobility Work Program Goals

The following Transportation and Mobility Work Program Goals were developed with guidance from the GPSC, based on community input, and with consideration for the data, opportunities and challenges outlined in this and previous chapters. The work program can be used to guide the implementation of the General Plan and make progress on Emigration Canyon's transportation and mobility goals. The work program outlines goals, objectives, and actions, with the responsible parties, timeline for implementation, approximate cost, metric for success, and relevant resources also delineated. However, the Emigration Canyon Metro Township Council is the governing body of the Municipality and will determine how best to achieve the goals, objectives, and actions included in the work plan, including how best to implement recommendations such as the formation of working groups. Details such as possible leads, timelines, costs, metrics, and resources are included to support implementation but are not definitive.

Goal 3.1: Enhance the existing character, integrity, and environmental management of the Canyon roads.

- Objective 3.1.1: Improve traffic and growth management to maintain the character and integrity of Emigration Canyon.
- Objective 3.1.2: Increase enforcement to avoid and/or minimize light and noise pollution throughout Emigration Canyon.
- Objective 3.1.3: Increase trailhead parking and related facilities.

Goal 3.2: Provide a safe, efficient transportation network for all users.

- Objective 3.2.1: Improve safety of Emigration Canyon's roadways for all users.
- Objective 3.2.2: Improve regional, city-wide, and neighborhood transportation management to create an efficient traffic system and reduce traffic impacts on air quality, especially during high-use times.





Cyclist in Emigration Canyon. Photo Courtesy of Maridene Alexander.

CHAPTER 4: ECONOMIC DEVELOPMENT CONSIDERATIONS

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Emigration Creek at the Emigration Brewing Company. Photo Courtesy of Maridene Alexander.

4.1 ECONOMIC CONSIDERATIONS

Consideration of Emigration Canyon's economic development options is needed to guide long-term decision making related to economic challenges and opportunities in the Municipality. However, this element does not intrinsically support economic development. Instead, it examines options that could support responsible, equitable, and sustainable economic activities in the area, especially as part of a wider regional context, and clarifies the kinds of economic development that would not be appropriate for Emigration Canyon. A mix of market research, community feedback, and local and regional plan integration informs the goals, objectives, and actions included in this element of the General Plan.

4.1.1 An integrated approach

Economic opportunities are tied to land use, transportation, housing, infrastructure, and resilience decisions, as well as community history and identity. In Utah, sales tax revenue funds much of a Metro Township's budget, and Emigration Canyon's land use ordinances determine how many properties can generate sales tax. As a Metro Township, Emigration Canyon can use the revenue generated from sales tax to fund projects and endeavors that matter most to local residents. Local zoning determines where which types of businesses – home occupations, restaurants – are allowed and how they can operate. The connectedness of the transportation

network influences how convenient it is for customers and businesses to reach each other, potentially influencing a business' ability to move products. Housing costs determine how much income a household has left to spend on goods and services, including food, entertainment, and recreation. Meanwhile Emigration Canyon's resident (and visitor) population serves as a market that sets the framework for which business types can succeed. Community aesthetics such as curb appeal (the attractiveness of a property when viewed from the street), attract customers and impact business success. Well-maintained, safe infrastructure supports economic stability, and at the same time, economic stability enables infrastructure maintenance. Likewise, economically diverse communities are more resilient to hazards and changes (e.g. pandemics, earthquakes, demographic change). All of these connections encourage taking an integrated approach to economic development planning in Emigration Canyon.

4.1.2 Regional strategies

Emigration Canyon has not included a dedicated Economic Development element in any previous general plans, but there are some economic development strategies occurring in the region that are likely to influence future Canyon opportunities.

The Wasatch Choice 2050 is a regional plan developed by the Wasatch Front

Regional Council (WFRC) that aims to create a robust and collaborative vision for the entire Wasatch Front, including the area in and surrounding Emigration Canyon. Wasatch Choice 2050 proposes several transportation updates and land use clusters that may help direct sustainable growth in the area. On the Wasatch Choice 2050 Map, Emigration Canyon's general land uses are shown as either rural preservation green space (current), or parks or protected lands (future). The proximity of the Canyon to the research/education/office center and economic cluster at the University of Utah emphasizes the role that the Canyon plays as an important natural resource amenity that supports development elsewhere (Wasatch Front Regional Council, 2019c).

Comprehensive Economic Development Strategy:

2018-2030 The Wasatch Choice 2050 Vision includes ten goals (see Figure 3.2 for details) that directly tie to and impact economic development opportunities across the region through four key strategies described in the 2018-2023 Comprehensive Economic Development Strategy (Wasatch Front Regional Council, 2018a):

1. Link Development with Transportation and Other Infrastructure - Coordinated transportation, infrastructure, and land-use decisions to enhance household's access to jobs and educational

opportunities and employer's access to workforce and customers.

2. Create Fiscally Sustainable Places - Revenues and expenses are balanced and sustainable for households, communities, and the region.
3. Provide Amenities - Maintain quality of life elements that attract skilled labor by encouraging more walkable cities, open space preservation, and improved air and water quality.
4. Attract and Retain Businesses, and Encourage Innovation - Support and encourage business retention, job creation, workforce development, and innovation by partnering and information sharing.

Wasatch Canyons General Plan 2020

The recently adopted Wasatch Canyons General Plan does not include Emigration Canyon within its planning boundaries, but because it is associated with a neighboring area with similar canyon characteristics, some of the goals and strategies are likely to resonate with Emigration Canyon residents. The Wasatch Canyons General Plan sets out the following vision and a set of guiding principles for economy (Salt Lake County Regional Development, 2020; Appendix G):

VISION:

Sustain the Wasatch Canyons as a world-class recreation destination that provides significant economic benefit to the region. Enable businesses to continue providing goods and services without compromising

the environment.

GUIDING PRINCIPLES:

1. Context-Appropriate: Attract and retain canyon businesses that are economically and environmentally sustainable.
2. Tourism: Recognize that tourism is a fundamental component of the Utah economy and is dependent on healthy and abundant natural and scenic resources.
3. Stewardship: Encourage businesses to be environmental stewards through practices and educational outreach to customers and visitors.
4. Branding: Promote signage and branding that highlights the history and heritage of the Canyons, and promotes appreciation and stewardship.

4.1.3 Community Input

Details on the participatory approach used to engage members of the Emigration Canyon community in the development of this General Plan are included in section 1.4. As part of the community input, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis (Figure 1.5) and an Achieve, Preserve, Avoid, and Eliminate (APAE) analysis (Figure 1.6) was conducted by the GPSC. A summary of key results relevant to this Economic element are included in the two subsections that follow. Key results from the Transportation and Land Use Survey relevant to economic development are described in the third subsection.

SWOT Analysis (Economic Considerations)

Strengths identified in the SWOT analysis and relevant to the economic element included the fact that Emigration Canyon is composed of a largely affluent, well educated, active community of residents. Weaknesses included slow internet, a low sense of community, and poor parking options (relevant for brick and mortar businesses). Opportunities to support sustainable local businesses and improve air quality (through having access to a more diverse local economy) were identified. Threats included over development and high traffic volumes.

APAE Analysis (Economic Considerations)

The APAE analysis identified several items relevant to consider in future economic decision making for Emigration Canyon. Achieving high speed internet/fiber optics in the Canyon was identified as a need, along with supporting sustainable local businesses and hosting local events that enhance a sense of community. The need to preserve historic areas, rural character, recreational values, and workspaces for local artists/musicians were also identified. Economic development considerations to avoid included overdevelopment, short-term rentals, parking issues and increased traffic. The elimination of issues such as pollution and uncontrolled growth/development were considered economically relevant items to aspire to in decision making.

Transportation and Land Use Survey

Public feedback makes it clear that Emigration Canyon survey respondents are not deeply interested in economic development in their area, with “Business Mix” scoring at the bottom of the list of “important” or “very important” considerations related to development in the area (Figure 1.7). However, in order to support strongly held environmental values such as “Clean Air” and “Sustainability and Energy Efficiency”, some consideration of sustainable economic development is needed. For example, if there were a few more local services in Canyon, residents might be able to avoid driving to access these goods. Similarly, the emphasis on the importance of “Parks and open spaces” means that respondents think of these areas as valuable assets that should be protected. Considering these assets as part of a sustainable economic development portfolio for both Emigration Canyon and the wider region can support conservation arguments.

Defining growth, development, and sustainability

Although the terms **growth** and **development** are often used interchangeably, they are not synonymous. Growth refers to any increase in a measure over time. Economic growth could indicate an increase in jobs or in gross domestic product (GDP) for example. Development, on the other hand, is a more complex and holistic term, focusing not just on the increasing measure of an indicator but

also on whether resulting changes are positive or negative, and what impacts changes have on various systems. Development typically includes some consideration for the overall well-being of human populations. Defined this way, development is “an unfolding of human potentials for meaningful participation in economic, social, political, and cultural process and institutions, so that people can improve their conditions” (Kamal, 2011). Economic development therefore looks at upward mobility, quality of life, diversity of businesses, and the ability for residents to meet daily employment, shopping, service, and financing needs. This element of Emigration Canyon’s General Plan therefore focuses on economic development, a critical component of Emigration Canyon’s future success.

Sustainable development, defined by the UN World Commission on Environment and Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987)” is a crucial component of Emigration Canyon’s economic development plan.

Due to its low population density and the high value placed by the community on the abundant natural landscape, the conservation of natural lands is a key strategy needed to protect both the quality of life of Emigration Canyon residents, and to support the long-term economic viability of natural resource based activities such as outdoor recreation in the region. Emigration Canyon is an asset that supports economic growth

throughout Utah through attraction of new job-creating businesses, and recruitment of skilled workers. Any economic development strategies that are applied in Emigration Canyon must therefore support economic vitality without sacrificing the beauty and utility of the surrounding landscape (Partnership for Sustainable Communities, 2011). Sustainability strategies promoted by the United Nations Sustainable Development Goals platform to address such issues include:

- Encourage land use that prevents degradation and unsustainable exploitation of resources;
- Encourage the use of environmentally friendly practices;
- Promote sustainable natural resources use and management, including ecosystem conservation through community-based programs;
- *Promote safe and environmentally sound waste management practices (United Nations Department of Economic and Social Affairs, 2009).*

4.2 EXISTING CONDITIONS

4.2.1 Regional Trends

Emigration Canyon is located within Salt Lake County and with easy access to the University of Utah and Downtown Salt Lake City. The municipality is influenced by the growth that has been occurring throughout the Salt Lake Valley, and it is connected to regional destinations via Emigration Canyon Road and Route 65 (see Figure 1.1). Examining county-wide market trends helps us to understand Emigration Canyon’s role within the regional economy and the opportunities that may lead to future economic success.

Based on a location quotient and shift share analysis (see Appendix F for details), in Salt Lake County, the most prominent emerging industries are Retail Trade, Accommodation and Food Services, Manufacturing, and other services. These industries demand commercial real estate, namely retail spaces and some industrial space to serve manufacturing needs. Options for expanding these industries in Emigration Canyon are extremely limited and of little interest to the community. However, growing industries in Salt Lake County include Professional and Technical Services, Transportation and Warehousing, Wholesale Trade, and Education Services. Some professional and technical service or education service businesses may not require a great deal of brick and mortar space, and a high percentage of the employed population of Emigration Canyon likely work in these

sectors. Therefore, some opportunities in these categories may align with the Canyon economic development goals outlined in this Plan (see work program).

Age Group	2018		2024*	
	Count	Percent	Count	Percent
Under 5 years	69	3.8%	92	4.7%
5 to 9 years	75	4.1%	122	6.3%
10 to 14 years	151	8.3%	136	7.0%
15 to 19 years	126	6.9%	124	6.4%
20 to 24 years	69	3.8%	56	2.9%
25 to 29 years	5	0.3%	50	2.6%
30 to 34 years	74	4.0%	74	3.8%
35 to 39 years	103	5.6%	112	5.8%
40 to 44 years	198	10.8%	133	6.9%
45 to 49 years	72	3.9%	122	6.3%
50 to 54 years	284	15.5%	136	7.0%
55 to 59 years	168	9.2%	152	7.8%
60 to 64 years	260	14.2%	158	8.2%
65 to 69 years	117	6.4%	157	8.1%
70 to 74 years	21	1.1%	144	7.4%
75 to 79 years	15	0.8%	93	4.8%
80 to 84 years	0	0.0%	44	2.3%
85 years and over	21	1.1%	30	1.5%
(Total)	1,828	100%	1,937	100%

Sources: U.S. Census Bureau, ESRI Business Analyst

Table 4.1 (at left): Age ranges, current and projected, for Emigration Canyon (Esri Business Analyst, 2018)

4.2.2 Demographic Overview

The population of Emigration Canyon has grown steadily over the last few decades, from 1,192 in 2000 to 1,806 in 2020 (Esri, 2020, Figure 4.1). If the population continues to grow at this rate, which is somewhat unlikely given environmental and other constraints, the population could increase to around

2,300 by 2030 (ibid). Over the next five years, the per capita income is not expected to increase substantially for Emigration Canyon residents, but current and projected per capita incomes are already well above the averages for Salt Lake City, Salt Lake County, and the State (for details see Appendix D).

Average household size has been relatively steady at around 2.7 persons per household in Emigration Canyon since 2000, and it is projected to remain the same for the next five years. There are currently 681 households in the Municipality, a dramatic increase of 56% from the 436 households in the Canyon in 2000. The area has traditionally had a very homogeneous racial and ethnic profile, although over the next five years a very modest increase in the percentage of residents identifying as minority racial and ethnic groups is projected for the area.

Prominent age brackets are highlighted in Table 4.1. The 2018 age distribution shows a large population that is middle-aged or in the early years of retirement, and many of these residents have pre-teen or teen children living at home. Over the next five years, the population of residents in 65+ age brackets will rise considerably. Because of these projected changes, looking forward the community will need to respond to the needs of diverse age groups, accommodating both an aging population and an increased population of youth.

4.2.3 Employment

Emigration Canyon is home to at least 15 local businesses who provide employment for approximately 173 employees (Table 4.2). Canyon residents generally have a high level of educational attainment, with 72 percent of the population holding a bachelor's degree or higher. Canyon residents also tend to work in professional level office jobs (86 percent) and to drive alone to work (76.3 percent). Ten percent of Canyon residents work in the service industry, four percent work in more physical labor positions, and the unemployment rate for residents in the Canyon is around 5 percent.

4.2.4 The Role of Visitors

Emigration Canyon offers visitors access to many world-class recreational opportunities in a beautiful, mountainous open space

setting, including:

- **Road cycling**
- **Hiking**
- **Mountain biking**
- **Snowshoeing**
- **Cross-country skiing**
- **Hunting**

Emigration Canyon and Big Mountain cycling routes have been in the top 10 roads for Utah cyclists, and are known around the US as well (Utah Office of Tourism, 2020). This popularity is likely to increase in the coming decades: Utah's population is projected to double by 2050 (Kem C. Gardner Policy Institute, 2016) and housing density is expected to increase in Salt Lake County, with an expected new housing development at the mouth of Emigration Canyon, where the University of Utah is planning construction of 7600 new

apartments and 950 townhomes over the next 20 years (Semerad, 2020).

With an influx of visitors in the coming years, how should Emigration Canyon balance economic sustainability with preserving the community's dedication to the environment, recreational amenities, and historic identity? The Wasatch Canyons General Plan frames this problem in terms of "visitor carrying capacity...when looking at the amount of people recreating or visiting the area in a period of time...There are many different types of capacity such as transit, vehicles on roads, trail head parking, trails, skiers... All of these different uses can have impacts on watersheds, ecosystems, wildlife and more" (Salt Lake County Regional Development, 2020, pg 10). Steps to respond to such impacts might include:

- Encouraging visitors to use alternative modes of transportation (e.g. public transit/ride sharing, carpooling, biking) to help prevent adverse effects on traffic, parking, and air quality.
- Promoting commercial uses or community events that enhance community bonding and attract visitors, but are small-scale, seasonal, or temporary, to limit their impact on the community's natural surroundings and small-town character (e.g. local food trucks, farmer's market, ice cream/shaved ice stand).
- Developing policies that protect wildlife from vehicles and erosion of habitats.

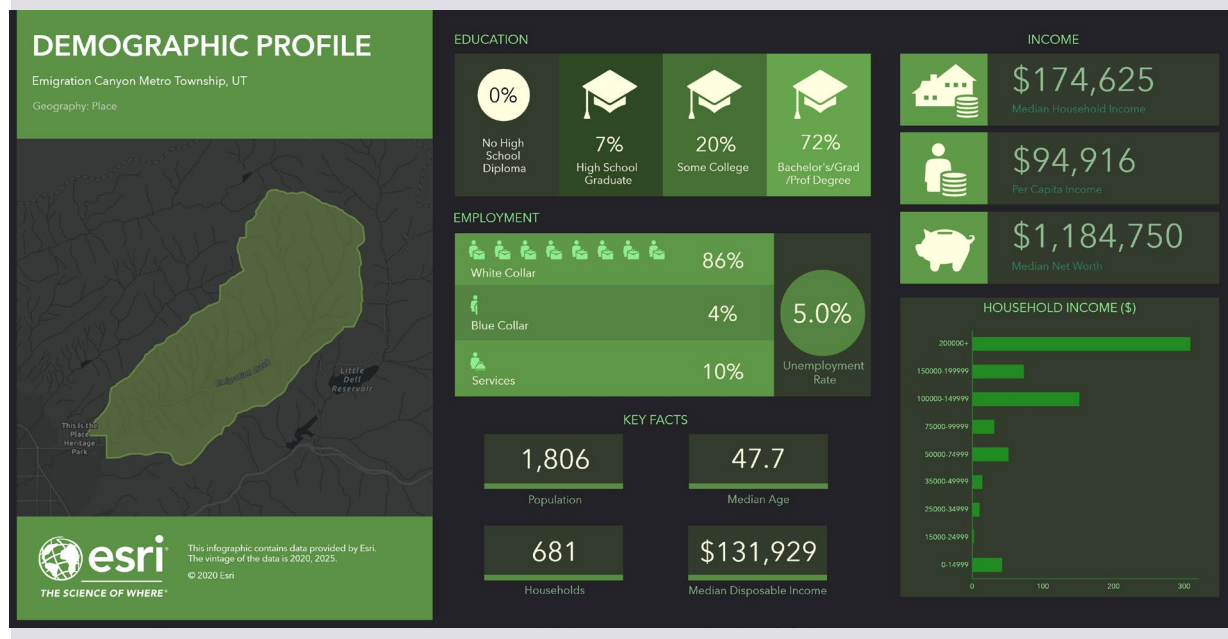


Figure 4.1: Demographic Profile of Emigration Canyon (Esri, 2020).

- Developing policies that protect the integrity of the Canyon’s trails and hunting areas (e.g. prevent overcrowding, watershed contamination).
- Developing policies that protect the Canyon and its residents from fire danger and other hazards.

4.2.5 How We Spend Our Money

A program by ESRI Business Analyst characterizes populations. By taking these characteristics into account, civil servants can plan in ways tailored to the community. These characteristics indicate what economic development may thrive in a community. Emigration Canyon is characterized entirely

by a tapestry segment called “Top Tier”:

- Top Tier is a highly educated, successful consumer market: more than one in three residents has a postgraduate degree.
- Annually, they earn more than three times the US median household income, primarily from wages and salary, but also self-employment income and investments.
- Socially responsible consumers who aim for a balanced lifestyle, they are goal oriented and hardworking but make time for their kids or grandkids and maintain a close-knit group of friends.
- These busy consumers seek variety in life. They take an interest in the fine arts; read to expand their knowledge; and consider

the Internet, radio, and newspapers as key media sources.

- They regularly cook their meals at home, attentive to good nutrition and fresh organic foods.

4.2.6 Access to Digital Infrastructure

Emigration Canyon residents and businesses rely on high-speed internet access for many aspects of modern life. It is the gateway to more and better jobs, improved educational access, a portal to public services and quality healthcare, and generally improves quality of life (Tomer et. al, 2020). The COVID-19 pandemic has intensified residents’ dependence on high-speed internet access, making access a dependency for residents who wish to participated in work and learning activities digitally. Further illuminating the “digital divide” that separates high-income and low-income neighborhoods in America (Hegel and Wilding, 2019). Those who don’t have reliable high-speed internet access can miss out on economic opportunities. To address these challenges going forward, decision makers in Emigration Canyon could determine levels of broadband internet access within Emigration Canyon, identify existing gaps, and explore options that can narrow the “digital divide”.

Other widespread digital infrastructure concerns that could be considered for analysis in future iterations of this General Plan include access to digital technology such as laptops and WiFi hotspots. These devices are

Emigration Canyon – Existing Business summary		
Source: Esri Community Analyst – Business Summary (2020).		
NAICS Code	# of Businesses	# of Employees
Accommodation & Food Services	1	80
Other Services (except Public Administration)	1	50
Wholesale Trade	1	9
Educational Services	1	9
Construction	2	6
Real Estate, Rental & Leasing	2	5
Administrative & Support & Waste Management & Remediation	2	5
Professional, Scientific & Tech Services	1	3
Arts, Entertainment & Recreation	1	3
Public Administration	1	3
Unclassified Establishments	2	0
	15	173

Table 4.2: Current business and employees based in Emigration Canyon.

considered luxury items for many households, but have become a requirement during the pandemic in order for many children and adults to participate in educational and economic opportunities (Duffy and Tappe, 2020).

Existing Commercial Development in Emigration Canyon

Emigration Canyon has limited land use and zoning dedicated to commercial development (for details see Chapter 2). Area to expand existing commercial development is limited by current commercial zoning conditions, geographic constraints (e.g. slope), and little desire from community members to add commercial zoning (see details section 1.4). Some prominent local businesses include:

Kostopulos Dream Foundation (“Camp K”) is a charitable organization that provides access for children/adults with disabilities to recreational and educational opportunities such as ropes courses, horse riding, swimming, fishing, and summer camps.

Ruth’s Diner has been in business for almost 90 years and is featured on the Food Network’s “Top Places to Eat” and the hit show Diners, Drive-ins, and Dives.

Emigration Brewing Company was founded near the site of Utah’s first brewery (1865) and collaborates with local brewers to emphasize small batch, local and handcrafted beer with a European influence.

Photos from left: Camp Kostopulos, Ruth’s Diner, Emigration Brewing Co. Courtesy of Maridene Alexander.





4.3 LOOKING AHEAD

“Without environmental sustainability, economic stability and social cohesion cannot be achieved.”

- Phil Harding

Fall Color in Emigration Canyon. Photo Courtesy of Maridene Alexander.

4.3.1 Future Opportunities

This Economic Development element focuses on finding the key areas where data on existing conditions, regional trends, and community interests and needs align. The areas where alignment occurs represent the strongest opportunities for future economic development in Emigration Canyon. Three main categories emerge from this analysis:

Neighborhood Commercial; Recreational Support; and Culture and Identity.

Neighborhood Commercial

The Emigration Canyon community would benefit from providing additional support to existing local businesses, and potentially supporting some very small-scale neighborhood commercial opportunities. The addition of a light neighborhood commercial

zoning category that was tailored to support only those businesses that could provide goods and services to canyon residents and visitors while also aligning with the sustainability values expressed in this General Plan, could enhance the resilience and sustainability of Emigration Canyon. Strategies such as 1) ensuring that local businesses are well-connected to transportation routes; 2) adding features that promote stronger social cohesion

and 3) providing low-impact opportunities for visitors to access goods and services in the area (e.g. farmer's market, food trucks, art fair, music festival) would align with goals and objectives outlined in several other elements of this plan (e.g. Land Use, Transportation, Resilience).

The EC Metro can help champion local businesses by:

- Informing local businesses about county, state, or federal financial assistance/incentives/programs that are available to small businesses (e.g. Business Expansion and Retention (BEAR) programs available through Salt Lake County Office of Regional Development).
- Informing local businesses of the many employment resources from the Utah Department of Workforce Services to help them hire quality employees, provide training, and navigate difficult employment issues such as layoffs or downsizing.
- Cultivating an "open-door policy" where local businesses can feel comfortable expressing their wishes, questions, or concerns with community leaders, and get assistance navigating local government regulations.

Recreational Support

Emigration Canyon boasts world-class open space and a wide array of outdoor recreational opportunities. But currently there is little to keep people on-site after an event or recreational activity is over -- visitors don not

spend their money locally. Expanding uses that support recreation help capture recreation and tourism revenue. The Emigration Canyon Metro Township Council could explore small-scale, seasonal/temporary commercial uses that can entice visitors to spend their money in Emigration Canyon after they enjoy the community's natural beauties (e.g. local food trucks, farmer's market, ice cream/shaved ice stand).

Culture and Identity

Wayfinding is "an important tool for helping people navigate and fully experience an area. Well-placed signage ensures that people can safely reach desired destinations. It also can help people discover new areas of interest in an impromptu way. Good wayfinding design fits and even enhances the unique character of an area" (Slottach-Ratcliff & Cowgill, 2015, pg. 7). Wayfinding can encourage residents and visitors towards local goods and services and bring in recreation/tourism dollars (ibid). Looking ahead, the EC Metro could ponder the following question in the coming months and years: how can we enhance the unique identity of the area to draw people in and create one-of-a-kind experiences, while also managing visitor impacts through improved infrastructure/parking?

4.3.2 Economic Development Work Program Goals

The following Economic Development Work Program goals were developed with guidance from the GPSC, based on community input, and with consideration for the data,

opportunities and challenges outlined in this and previous chapters. The work program can be used to guide the implementation of the General Plan and make progress on Emigration Canyon's economic goals. The work program outlines goals, objectives, and actions, with the responsible parties, timeline for implementation, approximate cost, metric for success, and relevant resources also delineated. However, the Emigration Canyon Metro Township Council is the governing body of the Municipality and will determine how best to achieve the goals, objectives, and actions included in the work plan, including how best to implement recommendations such as the formation of working groups. Some details are included to support implementation but are not definitive.

Goal 4.1: Foster responsible, equitable, and sustainable economic development in keeping with the character and values of Emigration Canyon.

- Objective 4.1.1: Enhance a community environment that embraces sustainable economic growth, while preserving the community's dedication to the environment, recreational amenities and historic identity.

Case Study: Commercial Develop Typologies

Commercial development and redevelopment opportunities in the Township are limited. Providing guidance through planning and zoning can help to ensure that new development contributes to existing culture and identity, fulfills community need, and is open to the public and maintained throughout all four seasons.

Any retail or service oriented business within the canyon is isolated from a traditional commercial corridor that might help to generate foot traffic. This often results in businesses that rely heavily on seasonal traffic, will limit hours of operation daily, and close temporarily in off seasons.

This reduces opportunity for residence of the canyon to benefit and rely on the conveniences potentially offered by allowing commercial activity within the township. Seasonally vacant building in the community can lead to disheveled appearance and attract unwanted attention at the site.

Combining living and working allows for businesses which can accommodate the flexible schedules and seasonality potentially required for operation. It also provides a continual use and occupancy for the structure. Connecting the site with the fabric of the community on a continued basis, and helping to ensure long term success of the business owner by reducing overhead.

Live - Work Description

A small- to medium-sized (2 to 3.5-story) attached or detached structure consisting of one dwelling unit above or behind a fire-separated flexible ground floor space that can accommodate a range of non-residential use. The flex space and residential unit typically have separate street entrances. The flex space typically has a taller height (min. 10') and a shopfront frontage. This type does not include a rear yard



Source: <https://missingmiddlehousing.com/types/live-work#prettyPhoto>

Commercial - Residential Description

The CR zone is a low-intensity zone for small and isolated sites within low density residential neighborhoods. It allows for small scale retail and service uses for surrounding residential areas, and limits residential density where commercial uses are not present. Some buildings in this zone may be up to three stories tall, but overall scale is calibrated to nearby residential zones.



Source: <https://www.portlandmaps.com/bps/zoning/#/zones/base/CR>



CHAPTER 5: ENVIRONMENT

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"For me, it always comes back to the land, respecting the land, the wildlife, the plants, the rivers, mountains, and deserts, the absolute essential bedrock of our lives. This is the source of where my power lies, the source of where all our power lies."

- Terry Tempest Williams

Maple Draw below Pinecrest. Photo Courtesy of Bill Tobey.

5.1 INTRODUCTION

Careful management of the ecosystems of Emigration Canyon is needed to maintain a high quality of life, now and in the future, for all members of the Canyon community, human and otherwise. Factors such as light, noise, air and water pollution, water availability, sprawl development, overuse of trails and risk of fires have the potential to significantly degrade the habitats that provide this high quality of life to residents of the area, and that make it a sanctuary for visitors who live in more urban spaces. In recent years, population growth and increasing visitation has heightened these risks.

Balancing the needs and interests of the members of this complex and interconnected human-environmental system can be challenging. Some interests, such as conservation and development, may seem to inherently conflict with one another. This Environmental element of the General Plan takes into account many of these potential conflicts and guides decision making to ensure that environmental protections are in place and a high environmental quality is maintained in the Canyon today, and for future generations.

This element takes a holistic, ecosystem-based approach to environmental planning (after Hammond, 2002). The approach aims to ensure the protection, maintenance, and restoration of ecological health and biodiversity at a range of spatial and temporal

scales. The ecosystem-based approach also recognizes that human-environmental relationships are an inextricable component of the system (Secretariat of the Convention on Biological Diversity, 2004). The approach enables the development of a robust conceptualization of the goods and services, benefits and values associated with the ecosystems of the Canyon and therefore supports a full accounting of these systems in all decision making (Guerry et al., 2015). For example, instead of considering the value of individual natural resources (e.g. water or soil), the element considers the health of fully functioning ecosystems (and their relationships to humans) as a more appropriate metric. The ecosystem-based approach to environmental planning aligns with the environmental values of many Canyon residents, as set out in the values section of Chapter 1.

This chapter provides a guide to consider current and future environmental impacts and ensure that environmental protections are in place and a high environmental quality is maintained in the Canyon today, and for future generations. The chapter does NOT address the preparedness and adaptive capacity of the Municipality in any depth. That topic is covered in the following chapter on Resilience and Infrastructure.

5.1.1 State Code

Utah State Code section 10-9a-403 allows for an environmental element of general plans that addresses “the protection, conservation, development, and use of natural resources, including the quality of air, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources.” Although this chapter is not required by the code, it is an essential element for Emigration Canyon due to the close relationship that exists between the residents of the area, their built environments, and the natural environment that surrounds them. The chapter provides a guide to consider current and future environmental impacts and aims to prevent significant adverse effects on the valuable natural resources of Emigration Canyon.

5.1.2 Values, Roles, and Responsibilities

Values, roles and responsibilities guide environmental decision making and implementation in Emigration Canyon and the surrounding areas. While the Municipality has land use authority within its own boundaries as outlined in Chapter 1, decisions made in the surrounding areas also influence the available options. Aligning the goals of the Municipality with regional values and acknowledging the roles and responsibilities of different organizations and institutions

that have an influence over environmental decision making in Emigration Canyon increases the likelihood of acquiring funding and successfully implementing projects.

United States Forest Service

Much of Emigration Canyon is included within the Uinta-Wasatch-Cache National Forest (Figure 2.2) as part of the United States Forest Service (USFS) Salt Lake Ranger District and the Central Wasatch Management Area. The Salt Lake City Watershed is defined in the code as “All of the Emigration Canyon watershed area that contributes water to Emigration Creek from Burr Fork and Killyon Canyon above a point at the intersection of Emigration Canyon Road and Pinecrest Canyon Road. Various rules and regulations have been put in place to protect this valuable water resource and ensure that the land remains in its natural state.

United States Environmental Protection Agency

The mission of the United States Environmental Protection Agency (EPA) is to protect human health and the environment. The EPA works to ensure that Americans have clean air, land and water by implementing and enforcing rules and regulations that set standards which must be met by States and Tribes. The EPA has been involved in overseeing water quality remediation efforts associated with Emigration Creek.

United States Army Corps of Engineers

The United States Army Corps of Engineers,

in partnership with the EPA, is responsible for wetlands management, study and protection, including on private property. Federal laws require no net loss of wetlands, which means that if a designated wetland is eliminated, another wetland site must be acquired and preserved to replace the site that is lost. Jurisdictional wetlands have been delineated along Emigration Creek and there may be isolated wetland areas along tributary drainages.

Utah Division of Water Rights

The Utah Division of Water Rights (DWRi) is an agency of Utah State Government within the Department of Natural Resources that administers the appropriation and distribution of the State’s valuable water resources.

Utah Department of Environment Quality

The Utah Department of Environmental Quality’s (DEQ) mission is, “Safeguarding and improving Utah’s air, land and water through balanced regulation.” The organization implements State and federal environmental laws and works with individuals, community groups, and businesses to protect the quality of our air, land and water. The Division of Drinking Water plays an important role in protecting and monitoring well water and groundwater, while the Division of Water Quality monitors and maintains other water bodies across the State. The Division of Air Quality could also be an important partner in working towards protecting the environment of Emigration Canyon.

Utah Open Lands Conservation Association

Due to their proximity to Salt Lake City, unprotected areas throughout Emigration Canyon are of interest to property developers. The Utah Open Lands Conservation Association is a 501(c)(3) nonprofit land trust conservation association that is chartered to preserve and protect open space in order to maintain Utah’s natural heritage and quality of life for present and future generations. Since 2001, Utah Open Lands has raised funds and established partnerships to preserve numerous parcels of land in Emigration Canyon, today totaling over 1,000 acres and approximately 9% of the land (See Figure 2.1).

Salt Lake City

Lands in Emigration Canyon owned by the Salt Lake City Department of Public Utilities (SLCDPU) are maintained primarily for watershed and open space purposes. SLCDPU holds and maintains surface and groundwater rights in the Emigration Creek watershed for current and future water supply purposes. Title 17 Chapter 17.04 of the Salt Lake City Code defines a portion of the watershed as protected. This area is defined in the code as “All of the Emigration Canyon watershed area that contributes water to Emigration Creek from Burr Fork and Killyon Canyon above a point at the intersection of state Highways 65 and 172.” SLCDPU is currently updating a long-range watershed management plan for the area, which should be completed sometime in 2022.

Salt Lake County

Traditionally, federal agencies such as USFS were responsible for completing resource management plans for much of the public lands within Utah, but Utah State Code was amended in 2015 (and again in 2016) to require every county in Utah to complete a County Resource Management Plan addressing all public lands within its jurisdiction. More details on this plan are included in the following section.

Lands in Emigration Canyon owned by Salt Lake County are maintained primarily for watershed and open space purposes. As part of this effort, Upper Emigration Creek is designated as a Category 1 High Quality Waters in accordance with UAC R371-2, Standards of Quality for Waters of the State, Section R317-2-3, Antidegradation Policy (Salt Lake County Watershed Planning & Restoration, 2015). Designated Category 1 waters must be maintained at existing high quality. New point-source discharges are prohibited in segments of Category 1 waters, and diffuse sources must be controlled to the extent feasible through implementation of best management practices or regulatory programs. This designation helps to ensure that much of the publicly owned or managed land in Emigration Canyon remains in its natural state.

Other important environmental departments housed within Salt Lake County include:

- **Salt Lake County Health Department**
– responsible for monitoring and

maintaining water quality in Emigration Canyon, including septic tanks and wells, and adhering to EPA water quality standards.

- **Salt Lake County Watershed Restoration** – active in the Canyon, help with monitoring of water quality, are in charge of flood control measures and would be involved in designing and implementing measures for wetland restoration.
- **Salt Lake County Parks and Recreation** – operates fund for buying land to protect watershed, wildlife habitat, and recreational access.

Emigration Canyon Improvement District

The Emigration Canyon Improvement District (EID) is a local special service district created under Utah Law. As such it is an independent governmental entity governed by a Board of Trustees. The EID is the culinary water provider for portions of Emigration Canyon and therefore establishes rules and regulations that govern this service including setting rates and fees. The EID also has the power to establish a property tax to help fund the services it provides.

The EID's role in planning and zoning is limited. The EID does not have any power to adopt land use control ordinances or approve or deny any land use applications, but EID input on the adoption and implementation of general plans is needed to assist with long term planning regarding culinary water

provision in the Canyon. The Municipality's plans will affect future demands on the EID for services and EID's capacity will affect the Municipality's ability to allow future growth.

5.1.3 Regional Efforts and Plans

Ecosystem-based planning approaches consider interactions across a range of spatial and temporal scales in order to protect, maintain, and restore the complex ecosystems that do not necessarily start or end at a municipal boundary. There are several regional planning efforts that are relevant to consider in relation to the environmental goals and objectives of Emigration Canyon.

United States Forest Service Plans

The most recent USFS plan (US Forest Service, 2003) relevant for Emigration Canyon maintains that the need to provide long-term, high quality culinary water to the Salt Lake Valley is the underlying premise of resource management in the Central Wasatch Management Area. The Plan also states that providing quality recreation opportunities within the framework of watershed protection will be an increasing challenge as the population and interest in the area as a recreation destination grows. To respond to these challenges, the Plan indicates that “continued coordination and cooperation among federal, state, and local government agencies, residents, businesses, and the recreating public will be imperative in order to meet these growing demands (pg. 4-153).”

Wasatch Choice 2050 Vision

The Wasatch Choice 2050 Vision (Wasatch Front Regional Council, 2019e), collaboratively developed with input from cities, counties, transportation partners, businesses, and community organizations regarding local and regional priorities, is supported by four key strategies:

1. Provide transportation choices, offering better access to transit and bicycle facilities.
2. Support housing options, responding to market demands and allowing for greater choices.
3. Preserve open space, providing unparalleled access to the outdoors, which is key to our quality of life and competitive advantage.
4. Link economic development with transportation and housing decisions, thinking about the interplay between them and ultimately the outcomes we want to achieve.

The first, third and fourth strategies are particularly relevant for the ecosystem-based planning efforts of Emigration Canyon, as alignments across these scales may create opportunities to leverage funding to facilitate implementation of Emigration Canyon's environmental goals and objectives.

Salt Lake County Resource Management Plan

All Counties are required by law to develop a County Resource Management Plan (CRMP). This is a planning document used to define

policy, goals, and objectives for managing natural resources on public lands (Transfer of Public Lands Act, 2012) within each county. The Act further defines 28 core resources which must be considered in the CRMP. In advance of the CRMP process, an assessment of County resources (Salt Lake Conservation District, 2013) identified the following priority concerns:

- 1. Water Quantity and Quality**
- 2. Noxious and Invasive Weeds**
- 3. Loss of Agricultural Lands**
- 4. Air Quality**

The Salt Lake County Resource Management Plan (Salt Lake County, 2017) addressed a range of topics relevant for Emigration Canyon, including Air quality; Cultural, Historical, Geological and Paleontologist Resources; Floodplains and river terraces; Forest management; Noxious and invasive species; Recreation and tourism; Riparian areas; Threatened, Endangered, and Sensitive Species; Visual Resources; Water Quality and Hydrology; Water Rights; Wetlands; and Wildlife.

Wasatch Canyons General Plan

The recently adopted Wasatch Canyons General Plan does not include Emigration Canyon within its planning boundaries, but because it is associated with a neighboring area with similar canyon characteristics, some of the goals and strategies are likely to resonate with Emigration Canyon residents. In particular, the vision and guiding principles set out for the environment in the Wasatch Canyons General Plan closely align with the

vision and goals set out in this chapter (Salt Lake County Regional Development, 2020):

VISION:

Serve as stewards to support healthy forests, connected ecosystems, habitats, and waterways for current and future generations. Promote programs that improve watersheds, air quality, vegetation, wildlife ecosystems, and scenic quality.

GUIDING PRINCIPLES:

1. **System:** Protect and steward open lands and natural resources (air, water, wildlife, fisheries, climate, trail systems, wetlands, dark skies, soundscape, soils, open space, and native vegetation).
2. **Open Space:** Promote the acquisition of natural and undeveloped lands for conservation.
3. **Water:** Protect, maintain, and improve watershed health, water supply, and water quality.
4. **Air:** Protect and improve air quality for protection of public health, environmental health, and scenic visibility.
5. **Native Species:** Maintain healthy populations of native species and support early detection and rapid response to eliminate invasive species and noxious weeds.
6. **Wildlife:** Preserve sensitive habitats and migration areas for wildlife.
7. **Property:** Respect approved private property uses and promote their stewardship of the environment.

8. **Wildfire:** Support wildfire safety and defensible space.

9. **Parking:** Ensure that parking management does not degrade watershed health or water quality.

5.1.4 Community Input

Details on the participatory approach used to engage members of the Emigration Canyon community in the development of this General Plan are included in section 1.4. As part of the community input, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis (Figure 1.5) and an Achieve, Preserve, Avoid, and Eliminate (APAE) analysis (Figure 1.6) was conducted by the GPSC. A summary of key results relevant to this Environment element are included in the two subsections that follow. Key results from the Transportation and Land Use Survey relevant to environmental planning are described in the third subsection.

SWOT Analysis (Environment)

The majority of the characteristics included in the original SWOT analysis conducted by the GPSC (Figure 1.5) are relevant to

the development of goals and objectives for the Environment element of the General Plan. This is not surprising considering the high value placed by the community on the natural environment of the Canyon. The focus of the strengths and opportunities sections of the analysis was on enjoying, protecting and enhancing the natural environment, while concerns regarding environmental disturbances and pollution feature prominently in the weaknesses and threats sections.

APAE Analysis (Environment)

The majority of the characteristics included in the original APAE conducted by the GPSC (Figure 1.6) are relevant to the development of actions in the Environment element of the General Plan. An overarching focus on the preservation and protection of the environment from sources of pollution and overdevelopment, as well as hazards such as fires and invasive species, is clearly articulated throughout all sections of the analysis.

Transportation and Land Use Survey

Figure 1.7 demonstrates that many of the top environmental concerns for Emigration Canyon identified by the GPSC in the SWOT and APAE exercises were also largely reflected by the Emigration Canyon community members who participated in the Transportation and Land Use survey, and many of these concerns have environmental components. Clean air received a 99 percent response rate in terms of being considered either “very important” or “important” by Emigration Canyon residents who responded to the survey, while parks and open spaces and sustainability and energy efficiency also garnered more than 95 percent of support from survey respondents. A related category, limiting growth and development, was supported by 94 percent of respondents. These analysis inform the goals, objectives, and actions that are included in the work program at the end of the chapter.

5.2 EXISTING CONDITIONS

5.2.1 Overview

Emigration Canyon is located within the Semiarid Foothills ecoregion (US Geological Survey, 2000). This area is characterized by a dry, four season climate and semiarid rolling mountains. Some details regarding specific aspects of the environmental conditions of Emigration Canyon are included in the sections that follow.

Climate and Air Quality

Emigration Canyon's climate, like Salt Lake County and the rest of the southwestern United States, is very dry. Emigration Canyon has all four seasons, with moderately hot summers and cold winters. July is typically the hottest time of the year, with an average high of around 90 degrees; the average low in January is around 22 degrees. The average annual precipitation is approximately 23 inches (Best Places, 2020).

The principal winter precipitation in Emigration Canyon 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. 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 Emigration Canyon. These zones have been classified by the USDA 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 (see Ramsey & West, 2009, pg. 53 for details).

Climate change is predicted to affect Utah by continuing to increase average temperatures across the state, causing more frequent and severe heat waves and drought (US Environmental Protection Agency, 2016). The local effects of climate change in Emigration Canyon are therefore likely to mean reductions in the amount of surface water in the creeks. The recharge rates of aquifers may also be reduced, thus influencing the availability of drinking water. The risk of wildfires is also likely to increase in Emigration Canyon due to climate change. Details on these risks and hazards, and their management at the local level, are included in Chapter 6, which addresses Resilience and Infrastructure.

Utah's topography and climate contribute to episodic air pollution during the winter and summer months. Seasonal temperature inversions trap emissions that form

Fall Color. Photo Courtesy of Maridene Alexander.



particulate matter and ozone. These harmful pollutants can rise to unhealthy levels, posing public health risks, economic consequences and decreased quality of life (Kem C. Gardner Policy Institute, 2020). Air quality is a significant challenge across Utah, but it is especially concerning in the high mountain valleys along the Wasatch Front, such as Emigration Canyon.

Topography and Vegetation Zones

Elevations in Emigration Canyon range from about 5,100 feet near the mouth of the canyon to just over 8,900 feet at the summit of Lookout Peak along the northern boundary of the Municipality. Much of the Canyon is dominated by lands where slopes exceed 30 percent.

Emigration Canyon has varied topography and a range of vegetation zones which correlate to slope, elevation and soil types (see Appendix K for details). The foothill communities located at the lower part of the Canyon are dominantly scrub oak of various varieties. Scrub oak is the most extensive plant community in the canyon environment. It begins in the lower foothills at about 5,000 feet and covers most of the areas up to about 7,500 feet. Streamside communities are dominated by maple, chokecherry, birch, alder, and cottonwood. Many varieties of deciduous shrubs are also found in this community. Rising in elevation, plant communities are dominated by aspen, fir, and spruce. At higher elevations, the most abundant trees are the Douglas Fir, Englemann Spruce and Alpine Fir. Above the timberline, at high elevation,

a variety of shrubs dominate the vegetation pattern. No lands in the area are capable/available for commercial timber harvest.

Invasive plant species are a concern for the varied habitats of Emigration Canyon, as they can disrupt the finely tuned ecosystems of an area, reducing the ability of system to resist and/or recover from wildfires, increasing the erosion of soils, and decreasing native forage for wildlife (US Forest Service, n.d.-a). Plants of great concern throughout the Wasatch Front's canyons are dalmatian toadflax,

garlic mustard, yellow star thistle, myrtle spurge, hounds tongue, a few non-native thistles, and Dyer's woad (Salt Lake County Regional Development, 2020). These plants can take root in disturbed areas such as roads, trails, campgrounds and construction sites, and then spread through human vectors (pathways) such as people, dogs, bicycles, and cars (ibid).

Other invasive species are also a concern when it comes to maintaining or restoring healthy ecosystems in Emigration Canyon.



Fall Leaf. Photo Courtesy of Katie Cook Oborn.

Insect species can be particularly damaging to forest vegetation and result in a range of adverse effects that can ripple out to influence the entire ecological system. For example, the Balsam Woolly Adelgid (BWA), a tiny sucking insect that was introduced to North America from Europe, has recently been identified in the Wasatch Mountains and can cause widespread mortality of subalpine fir trees (Salt Lake County Regional Development, 2020). This is a concern because there are few other tree species that can survive in this vegetation zone; if subalpine fir trees are lost in large numbers, severe ecological damage could result from increased erosion, reduced watershed health, loss of wildlife and their habitat, and reduced recreational values (Alston et al., 2018). Dead and dying fir trees can also increase the risk of severe wildfires.

Geology

Emigration Canyon is located along the western flank of the central Wasatch Mountain Range within the Middle Rocky Mountain physiographic province; folded mountains (anticlinal folds), are the dominant type of mountain in this province (US National Park Service, n.d.). The bedrock underlying the Municipality has been folded into a northeast-southwest trending syncline (or a broad U-shape) (Utah Geological Survey, n.d.). Sedimentary rocks of the Triassic, Jurassic, and Cretaceous ages line the roads of Emigration Canyon, with Jurassic Twin Creek Limestone, which includes oolitic, sandy, silty, fossiliferous, massive, and/or shaly (some intensely shattered) limestone

being characteristic of the area (ibid). Bedrock units found across the Municipality 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.

Watershed

The Emigration Creek Watershed, located in

the northeast corner of Salt Lake County in Northern Utah, drains a total of 24.1 square miles. It is divided into two sub watersheds based on differences in land cover, land use, elevation and topography (Figure 5.1) (Hubbard-Rice, 2015).

The Upper Emigration Creek Sub-watershed has a drainage area of 18.2 square miles and

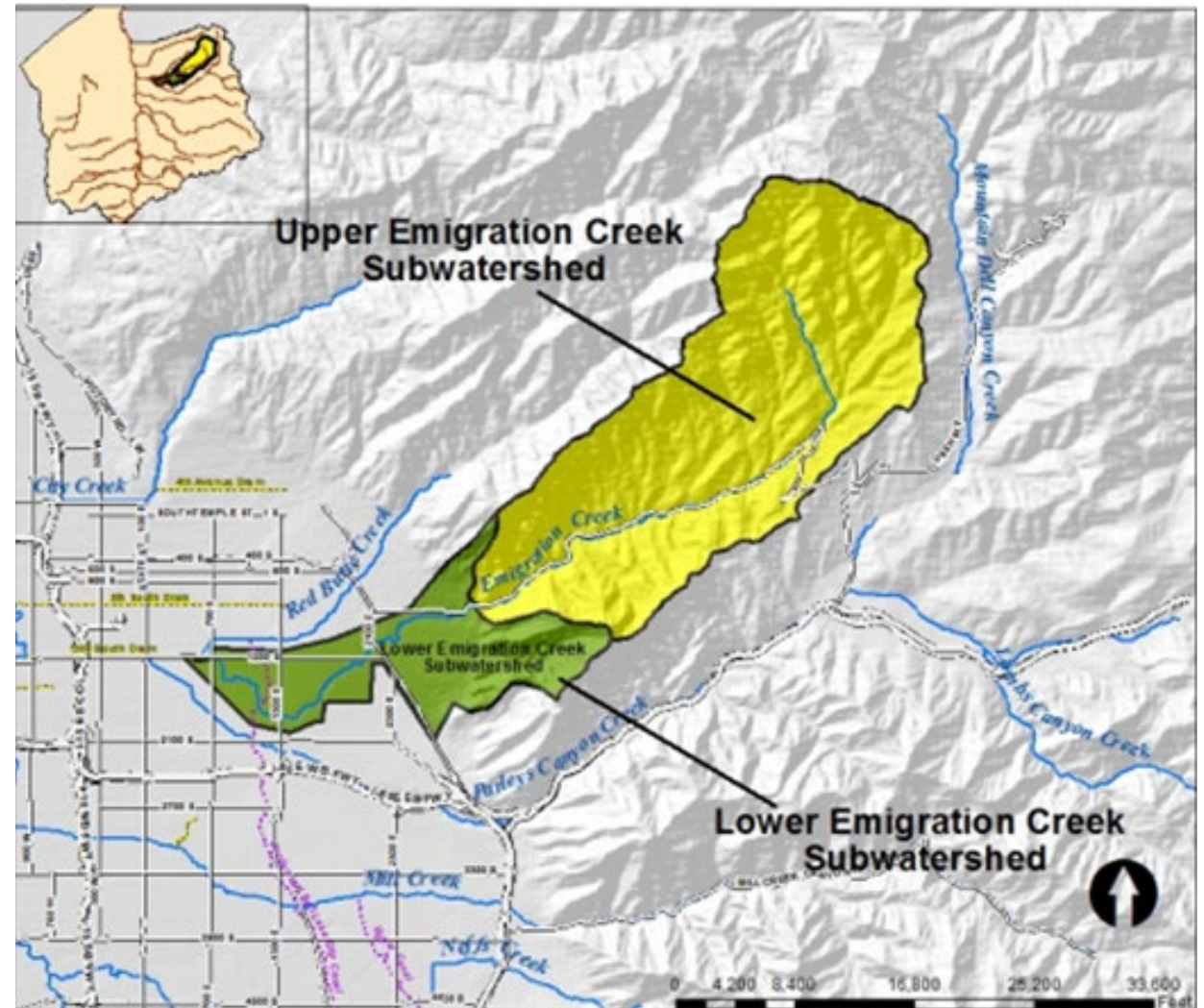


Figure 5.1: Emigration Creek Subwatersheds (Hubbard-Rice, 2015, pg. 3).

contains a groundwater recharge zone. The Lower Emigration Creek Sub-watershed has a drainage area of 5.9 square miles comprised of the bench area below the canyon outlet. This sub-watershed is located just outside of the Municipal boundaries of Emigration Canyon.

Annual stream flow volumes for Emigration Creek show a slight declining trend since 1970 (BIO-WEST, Inc., 2010, fig. 3.9). If this trend continues and/or accelerates due to the

influences of climate change, it could have adverse effects on wildlife, especially fish.

The relationship between stream flow and groundwater volumes is not straightforward, but groundwater can have a big impact on stream flow (Utah State University Extension, n.d.). Some Emigration Canyon residents, especially those who access drinking water from private wells, are concerned about how declining surface water volumes and lengthening drought season trends might

influence the water quality and quantity in the Canyon (O'Donoghue, 2019). The most recent publicly available study of Emigration Canyon's groundwater comes from a 1966 Master's thesis (Barnett, 1966). Based primarily on projected groundwater capacity, build limits have long been considered for Emigration Canyon (Hansen, 2018). Concerns have also been raised in relation to the quality of the Canyon's groundwater, but there is little recent, publicly available evidence to point to on this topic. A call for a comprehensive

Figure 3-34. Average *E. coli* Data for Various Monitoring Locations along Emigration Creek (2010 - 2014)

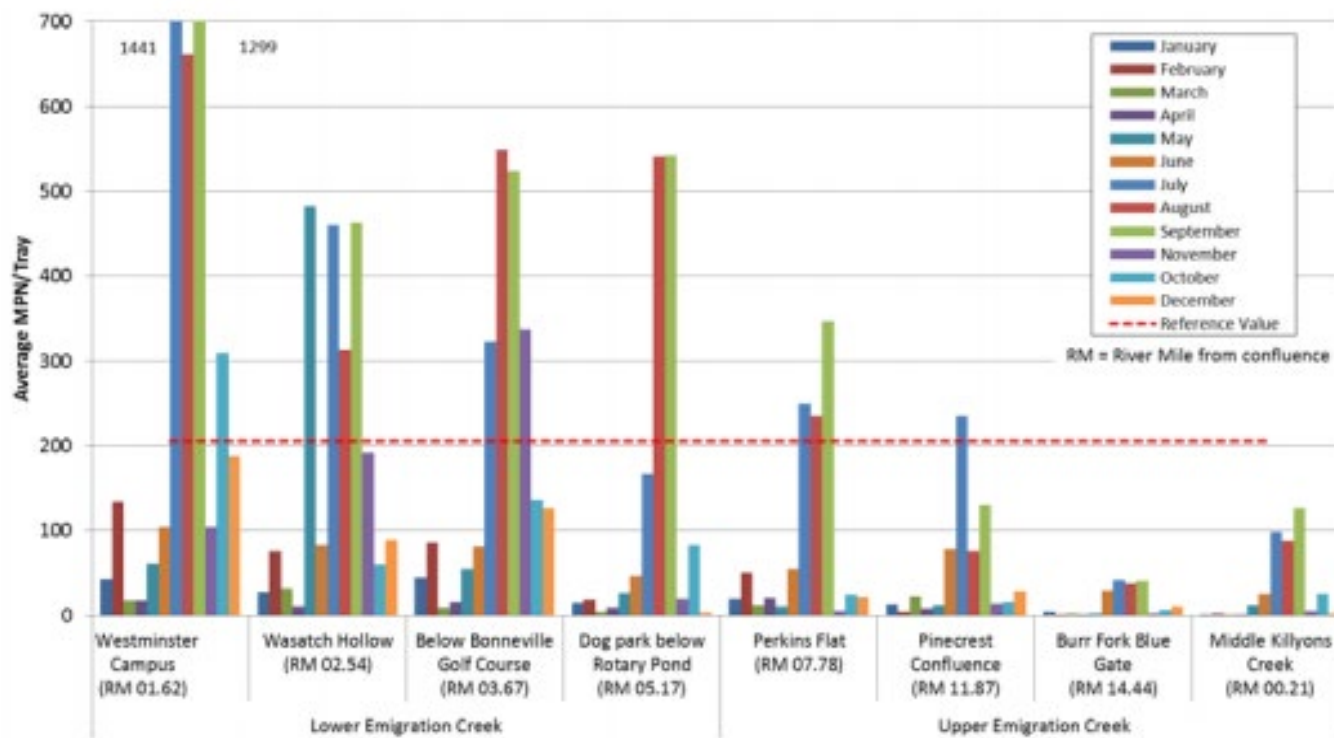


Figure 5.2: Average *E. coli* data for various monitoring locations along Emigration Creek (Salt Lake County Watershed Planning & Restoration, 2015, Figure 3-34).

watershed study was included in the 1999 General Plan to address this concern (Salt Lake County Planning and Development Services, 1999), but little action has been taken to progress this item until recently. In 2020 the Emigration Canyon Sustainability Alliance, a grassroots environmental organization, successfully applied for an EPA grant to conduct a watershed study that is expected to be completed by December 2021.

Upper Emigration Creek was first listed as impaired waters for pathogens (high fecal coliform levels) in 2002. In 2006, Utah switched to *Escherichia coli* (*E. coli*) as the indicator species for pathogens as it provides a better indicator of human health threat. In July 2012, the US Environmental Protection Agency approved the Total Maximum Daily Load (TMDL) document for *Escherichia coli* (*E. coli*) in the Upper Emigration Creek Watershed (Utah Department of Environmental Quality, 2011). The document addressed water quality impairments within the Upper Emigration Creek Sub-Basin and established allowable loading of *E. coli*.

The TMDL document defined the critical season as the months of July, August and September (Figure 5.2) and required a load reduction of 41% collectively. The observed loading is higher during the summer months due to a combination of several factors including warmer water temperatures and increased activity of humans, domestic animals and wildlife.

The TMDL (2011, pg 1) document concludes

that non-point sources of pollution are the primary causes of pollution in the Upper Emigration Creek watershed; studies suggest that the origin of non-point pollution in Emigration Creek may include “residential waste disposal, fecal contamination from dogs and wildlife, stormwater runoff, hydrologic modifications, and groundwater seepage from old holding vaults and septic tank leach fields.”

Although many improvements have been implemented in the Upper Sub-Basin, exceedances of water quality standards still occur on a regular basis, including Upper Emigration Creek not meeting water quality standards for recreational uses that involve physical contact with the water (Hubbard-Rice, 2015). Upper Emigration Creek is the only stream segment with ongoing TMDL studies and implementation planning in Salt Lake County (Salt Lake County Watershed Planning & Restoration, 2015). The focus of the implementation is the presence and condition of septic tanks serving residents and business in the watershed. As part of this effort, the EID, which provides water to the majority of the residents of Emigration Canyon and plays a role in waste management as well, has some responsibility to monitor regional collection and treatment of wastewater issues.

Jurisdictional wetlands have been delineated along Emigration Creek and there may be isolated wetland areas along tributary drainages (Salt Lake County Planning and Development Services, 1999). These wetlands, though small in size, provide

sanctuary for a diverse range of plants and wildlife, and contribute to the maintenance of the ecological balance of the area, including supporting hydrologic recharge and water quality improvements. Other values such as recreation are also supported by these areas, which are protected under federal laws administered by the EPA and US Army Corps of Engineers.

Wildlife

Wildlife is abundant in Emigration Canyon and the surrounding areas of the Wasatch Range. The wide variety of microclimates and habitats resulting from the range of elevation changes and slope aspects associated with the Canyon support a diverse range of mammal and bird species. There are no recent studies of Emigration Canyon’s wildlife, although the 1999 General Plan lists a wide range of species known to occupy the Canyon and demarcates some of their and vital habitats (Salt Lake County Planning and Development Services, 1999; Appendix L). Although there is a lack of current data on Emigration Canyon, neighboring Red Butte Canyon is designated as a Research Natural Area administered by USFS and it maintains good lists of wildlife known to occur in the area. Red Butte Canyon has recorded 39 species of mammals (Red Butte Canyon Research Natural Area, n.d.-b) and 106 species of birds (Red Butte Canyon Research Natural Area, n.d.-a).

Because of the unique history of Red Butte Canyon, which has largely been protected from human development and grazing since 1862, it is unlikely that all of these species

can be found in Emigration Canyon today. However, the close proximity and similar natural environments suggest that a great deal of overlap is possible.

Today the range of species known to inhabit or visit Emigration Canyon includes (but is not limited to):

- Mule deer, coyote, cottontails, rough-legged hawks, red-tailed hawks, thrashers, and scrub jays in the dry foothills of the Canyon.
- Moose, elk, deer, black bear, badger, bobcat, mountain lion, porcupine, ermine, squirrels, wild turkey, owls, stellar jays, and woodpeckers in the Canyon's forests and higher elevations.
- Emigration Creek once harbored rainbow, brook, brown and Bonneville cutthroat trout, but all of these species may not be present today given the current degraded state of the Creek. Beaver also once occupied the Canyon's creeks in substantial numbers and there is some interest in reintroducing them to the Canyon.

Visual Amenities

The visual resources of Emigration Canyon combine to create amenities that attract both residents and visitors year-round. Emigration Canyon has a wealth of visual amenities – views of unfettered natural landscapes, and clear, dark skies at night. In 2013, the area was listed among the top ten best stargazing spots in Utah (McFarland, 2013), and the area found its way onto a top 21 list again in 2018 (Stimac, 2018).

Cultural Resources

Emigration Canyon is associated with several key components of Utah's human history. The area was and is important for Native Americans living in the area, and some

artifacts from the Fremont people have been found in the Canyon (Carlstrom & Furse, 2019). The area is also well known for the role that it played in the settlement of the Salt Lake Valley by early Mormon pioneers. The Last Campsite of Brigham Young's group (July 23, 1847) before entering the Salt Lake Valley was demarcated by the Daughters of the Pioneers in 1936 (Figure 5.3). More recent mining and farming activities in the Canyon add layers to the cultural landscape of the area. These resources attract visitors to the area and contribute to the complex identities of Canyon residents.



Figure 5.3: Key historical locations in Emigration Canyon (Epperson, 2019).



5.3 INTERGENERATIONAL PLANNING

Emigration Canyon Wild Turkeys. Photo Courtesy of Catherine Harris.

An ecosystem-based approach to planning requires consideration of a range of spatial and temporal scales if it is to ensure the protection, maintenance, and restoration of ecological health and biodiversity. This approach does not necessarily align with a standard general planning process. These longer timescales and broader spatial scales must be considered, however, due to the scale and scope of the complex systems in play. Intergenerational planning that encompasses multiple life cycles of both humans and other Canyon residents, is therefore needed

when developing an effective environmental element for a general plan.

5.3.1 Visions for the Future Future Air Quality Vision

Canyon residents and visitors thrive on being outdoors, enjoying the fresh Canyon air and the many activities that access to Emigration Canyon's many open spaces provides. Through a commitment to supporting local activities, economies, and innovations, individuals reduce their non-point source

emissions. As a result, air quality improvement trends are evident across the Salt Lake Valley.

Given the importance of water resources in this area, both to Canyon residents, and to Salt Lake City beyond, watershed maintenance, protection and enhancement is a primary consideration in all land management decisions. Watersheds and streams provide high quality water supplies to the Salt Lake Valley. Various uses and developments (restroom facilities, picnic areas, trailheads and trails) are designed to prevent or fully

mitigate impacts, resulting in a healthy, high functioning condition in the Emigration Creek watershed. Impacts from historic activities are mitigated to the greatest extent that is economically feasible.

In responding to increasing recreation demands, water quality, riparian conditions, and wildlife habitat needs are considered first. Provisions are made for a wide range of recreation uses including access and sanitation facilities that prevent deterioration of watershed conditions. Major trailheads and restrooms are provided and maintained in cooperation with partners such as Salt Lake City Department of Public Works, the USFS, and the local municipal government. Users are aware of the need to restrict in-water activities because of water quality, and compliance with watershed ordinances is excellent. Public education about watershed protection and appropriate behavior in watersheds is consistently accomplished in cooperation and partnerships with a range of agencies. Residents are aware of the need for, and implement, water conservations strategies. A plan for monitoring the groundwater system is implemented to prevent overuse of finite water resources. Water quality is important to users as well as managers, and annual monitoring indicates that conditions are steadily improving.

Future Landscape Vision

A coordinated approach, including the allocation of funding, is taken across multiple partnering agencies to protect and restore the biodiversity of Emigration Canyon. Wildlife

needs are identified and then considered as a component of all land use decisions. Several habitat types and prime habitat areas and corridors needed to support biodiversity are protected, and areas for safe wildlife observation are developed. As a result, vegetation cover types form a mosaic of plant communities representing a diverse mix of ages, sizes, and species. Noxious weeds and invasive species are reduced throughout the Canyon. Wildlife is abundant, and species once lost to the area return or are reintroduced.

Protective measures and educational programs provide for the maintenance of species at risk and contribute to their recovery,

while proactive efforts educate and inform residents and visitors of the fundamental importance of biodiversity.

The scenery of the area, including the night skies, continues to be a valuable and pleasurable natural backdrop for the urban area. Views up and within the canyon of natural and developed areas are carefully managed to sustain scenic resources. Peace, quiet, and tranquility are protected as part of residents' privacy, for the benefit of wildlife, and to maintain the character of the Canyon.



Mama and baby Black Bear, photo by Gen Dee (licensed under CC by-ND 2.0).

Future Interrelationships Vision

A comprehensive evaluation of the existing open space and trail system (including user created routes) is conducted, and a strategy developed to meet increasing demands while maintaining watershed conditions and protecting the privacy rights of Canyon residents. Protection of the Canyon ecosystems is a primary factor in the management of roads, trails, and access. Parking options are improved to ensure safety, protect watersheds or to facilitate ride sharing/mass transit. Ride sharing/mass transit is commonly used during peak times. Partnerships are forged to explore options for reducing private vehicular use within the Canyon.

Visitors to this area take advantage of environmental education and appreciation programs that enhance their outdoor recreation experiences. People with diverse needs and values function in an atmosphere of cooperation and constructive resolution of differences. Inventory efforts document Indigenous and early European settlement of the area. Research and interpretive efforts educate residents and visitors about the culture and history of the area.

The Emigration Canyon environment enhances the quality of life of its residents, human and otherwise, while also improving the quality of life for many members of the large urban population of the Salt Lake Valley by providing access to stable watersheds and natural landscapes nearby.

5.3.2 Environment Work Program Goals

The following Environment Work Program Goals were developed with guidance from the GPSC, based on community input, and with consideration for the data, opportunities and challenges outlined in this and previous chapters. The work program can be used to guide the implementation of the General Plan and make progress on Emigration Canyon's environment goals. The work program outlines goals, objectives, and actions, with the responsible parties, timeline for implementation, approximate cost, metric for success, and relevant resources also delineated. However, the Emigration Canyon Metro Township Council is the governing body of the Municipality and will determine how best to achieve the goals, objectives, and actions that are included in the work plan, including how best to implement recommendations such as the formation of working groups. Details are included to support implementation but are not definitive.

Goal 5.1: Protect and enhance clean, clear air quality.

- Objective 5.1.1: Improve air quality in and around Emigration Canyon.

Goal 5.2: Preserve and enhance the health of the watershed to ensure that it has adequate quality and capacity to fulfill the needs of all those who depend upon it for life and well-being, both human and non-human.

- Objective 5.2.1: Improve water quality and maintain or improve water quantity in the Upper Emigration Creek sub-watershed.

Goal 5.3: Preserve and enhance natural areas and ensure that landscapes are functional and diverse.

- Objective 5.3.1: Increase open space preservation and access in Emigration Canyon.
- Objective 5.3.2: Increase coordination of biodiversity and invasive species management in Emigration Canyon.
- Objective 5.3.3: Preserve and enhance views of the night sky and protections for nocturnal wildlife.

Goal 5.4: Foster healthy, balanced relationships between humans and nature.

- Objective 1: Increase identification of cultural, historical, geological, archaeological and paleontologist resources.
- Objective 2: Increase education and outreach that encourages stewardship, sustainability, and other balanced interactions with the environment.

CHAPTER 6: RESILIENCE & INFRASTRUCTURE

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“When crisis comes we begin to see that community is the true and irreplaceable infrastructure.”

-Unknown

Booths at the Firewise Fair, photo courtesy of Lisa Tippetts.

6.1 INTRODUCTION

Resilience is the ability for complex systems to change, adapt, and transform, in positive ways and within a reasonable timeframe, following hardships and disasters (adapted from Davoudi, 2012). In planning:

- Systems, in this context, are interconnected networks that include both social and ecological elements. The term is used to describe the relationships and interactions among and between people, wildlife, and the environment.
- Why do we say change, adapt, and transform? These three verbs convey that true resilience is when we learn from and improve upon past experiences, rather than returning to a “normal” that may not have benefited everyone in the community equitably.
- Hardships and disasters comprise a variety of short and long term, sudden or gradual, expected or unexpected, small or large, experiences: natural disaster, discrimination, pandemic, economic recession, digital revolution, autonomous vehicles, climate change, cyclical poverty, and violence, for example.

Infrastructure is the set of fundamental structures and facilities serving a society and enabling its operation. Infrastructure often calls to mind brick and mortar structures such as bridges, telephone poles, and stormwater drains. However, there is also digital infrastructure—services necessary

to a society’s information technology and communication capabilities—including internet access and reliability. There is social infrastructure too; the assets that act as a conduit to bring people together and strengthen relationships. Social infrastructure includes schools, community groups and events, outdoor markets, coffee shops, libraries, parks, religious institutions, and other physical assets that create a culture of neighborliness, acceptance, and connection (Landau, 2019).

Resilience planning recognizes that the mere presence of infrastructure does not ensure the social connectedness and cohesion that a community must rely on in order to adapt or respond to hardships and changes. The strength of social networks and associated levels of trust and connectedness within a community are an invisible but essential component of community resilience (Aldrich and Meyer 2015).

Infrastructure and resilience are tightly related. Well-maintained, high functioning infrastructure enables more resilient communities. Such communities have brick and mortar, digital, and social structures that support strong networks and build trust among community members, thus improving their quality of life.

Equity in Planning for Resilience and Infrastructure

The **equity** of a plan, policy, or practice (how fair and just it is for all people), is a key factor to consider when analyzing a community’s resilience and infrastructure. Resilient communities have social, brick and mortar, and digital infrastructure that is accessible to all, no matter a person’s age, race, ethnicity, gender, or other characteristics. If some people in a community are not able to access these kinds of services, then that community as a whole may struggle to respond to or recover from hardships and disasters.

When hardships occur or disasters strike, certain individuals or groups of people are often affected more than others. In the past, planning efforts have often neglected to consider these groups in advance of a crisis, and recovery efforts have exacerbated inequities. Engaging individuals and groups who are likely to be disproportionately affected by hazards or hardships in resilience planning in advance of a crisis can help to support the establishment of more equitable plans, policies, and practices.

6.1.1 Planning for Change

Communities that plan are generally more resilient to change. The planning process provides a space for community members to develop a collective understanding of their needs and desires and to discuss difficult, controversial, or complex topics. The planning process also provides an opportunity to analyze qualitative and quantitative data and consider possible ways forward based on these findings. Through this process, community members can develop a realistic understanding of current conditions, establish a collective vision for where they hope to be in the future, and suggest ways to work collectively towards achieving those aspirations. This process can enable a community to maintain its strengths, realize

its opportunities, plan for challenges, and mitigate threats – in essence, to develop its resilience.

This General Plan takes a comprehensive and participatory approach to resilience and infrastructure planning (e.g. after Sharifi & Yamagata, 2018). For details on how community input has guided the content of this element, see section 1.4. The Resilience and Infrastructure Chapter ties together the assets mentioned in the previous chapters (e.g. land use, transportation) and applies a resilience framework to them. This means asking questions such as: resilience of what, to what, and for whom? (Meerow & Newell, 2016). In this way, this chapter aims to strengthen and deepen the work undertaken in previous chapters, but not to replicate these

topics altogether.

Bringing It All Together

This General Plan recognizes, draws from, and builds upon relevant strategy documents, such as the 2019 Salt Lake County Multi-Jurisdictional Hazard Mitigation Plan (Salt Lake County Emergency Management, 2019). The Hazard Mitigation Plan assesses Emigration Canyon's legal, fiscal, and technical capabilities. It also identifies Emigration Canyon's specific hazard risks and proposes associated risk mitigation strategies. Additional consideration is given to topics drawn from the literature such as climate change, air quality, and social cohesion. The work programs from chapters 2-5 each contribute to infrastructure and resilience planning, but the work program for this chapter includes goals, objectives, and actions specific to the topic, offering an implementable program that supports improving infrastructure and resilience in Emigration Canyon.

6.1.2 Relationships, Roles, and Responsibilities

Connectivity across a range of scales strengthens the resilience of a community and its ability to prepare for or respond to a major shock or change. Many organizations, agencies, entities and individuals therefore have roles and responsibilities that support resilience planning and response efforts in Emigration Canyon. Some of the key roles and responsibilities are outlined in the subsections that follow.

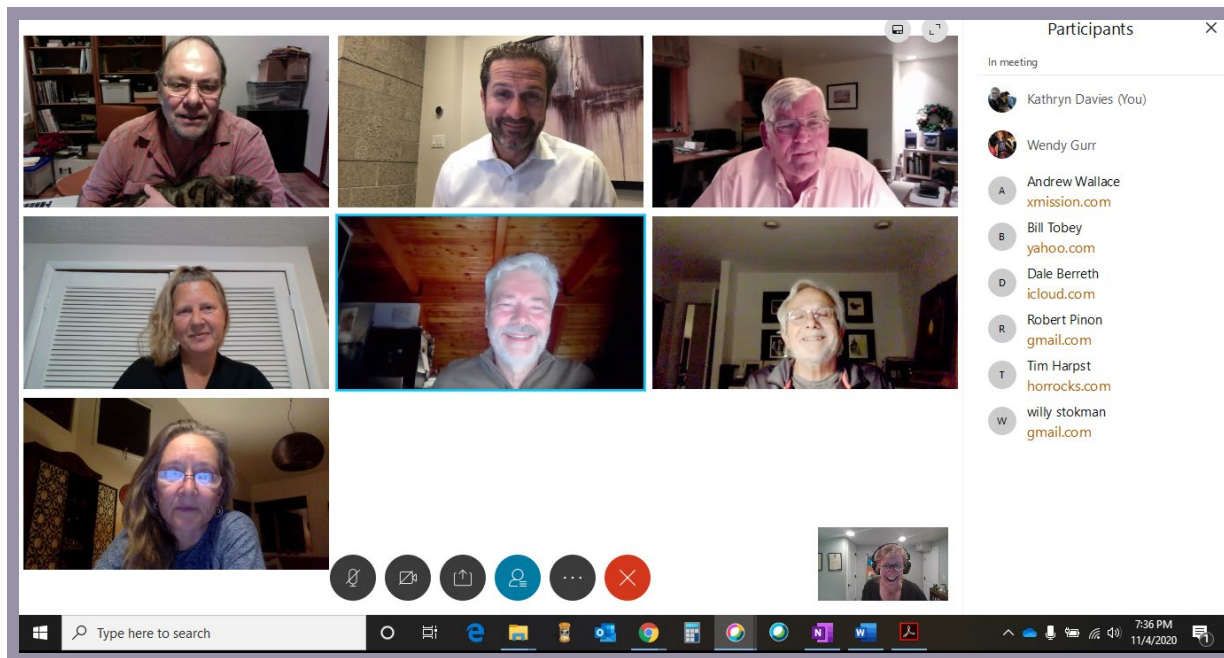


Figure 6.1: The General Plan Steering Committee demonstrating their resilience by moving to online meetings when the COVID-19 pandemic made it too risky to continue in-person meetings.

Federal Agencies

The Federal Emergency Management Agency (FEMA) coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters. The Department of Defense coordinates federal military forces responding to and recovering from all domestic disasters. The National Weather Service, an arm of the National Oceanic and Atmospheric Administration (NOAA) issues severe weather watches and warnings. The Environmental Protection Agency (EPA) is responsible for setting and maintaining environmental and associated health standards.

State of Utah

Utah Division of Emergency Management is responsible for coordinating the State of Utah's response to disasters and provides support to local emergency management efforts as needed. The Utah National Guard also supports statewide emergency management efforts. The Utah Department of Environmental Quality - Division of Drinking Water is responsible for regulating and protecting public drinking water systems throughout the state.

Salt Lake County

Salt Lake County (SLCo) conducted an all-hazards assessment of potential vulnerabilities associated with all jurisdictions within its boundaries (Salt Lake County Emergency Management, 2019). This assessment can assist communities within SLCo, including Emigration Canyon,

to prioritize and direct hazard preparedness and planning efforts. The SLCo Emergency Management's Coordination Center located at 3380 South 900 West, Salt Lake City, Utah, will serve the affected communities served by the MSD as the command center for all disaster response operations, if requested by the Chief Elected Executive(s), or their designee(s) for Emigration Canyon. The Valley Emergency Communications Center operates a 24 hour/7 day a week 911 police, fire, and emergency medical services dispatch center that serves Emigration Canyon.

In some circumstances, such as the COVID-19 pandemic, SLCo administers federal relief funding (e.g. CARES Act funds) to communities within the County.

Salt Lake City

Salt Lake City Department of Public Utilities (SLCDPU) holds and maintains surface and groundwater rights in the Emigration Creek watershed for current and future water supply purposes. Title 17 Chapter 17.04 of the Salt Lake City Code defines a portion of the watershed as protected. This area is defined in the code as "All of the Emigration Canyon watershed area that contributes water to Emigration Creek from Burr Fork and Killyon Canyon above a point at the intersection of state Highways 65 and 172." SLCDPU are currently updating a long-range watershed management plan for the area, which should be completed sometime in 2021.

Greater Salt Lake Municipal Services District

The Greater Salt Lake Municipal Services District (MSD) is the interlocal government agency that provides current and long range planning, as well as building inspection and permitting, code enforcement, and engineering services to member communities. These services are crucial to preparing communities for infrastructure challenges, natural hazards, and other disasters. The MSD has supported Emigration Canyon to develop an Emergency Operations Plan (Emigration Canyon Metro Township, 2019) which establishes a framework to integrate and coordinate the emergency response and recovery actions across all levels of government, volunteer organizations, and the private sector within its jurisdiction.

Emigration Canyon Metro Township Council

The five elected members of the Emigration Canyon Metro Township Council (EC Metro) have an intimate knowledge of the community needed for robust decision making, especially in order to prepare for or respond to a crisis. The ability of the EC Metro to connect with local residents as well as other regional leadership is crucial to information sharing and leveraging resources. Trust in the decisions made by members of the Council is needed to bolster social cohesion in Emigration Canyon.

Emigration Canyon Metro Township Planning Commission

The five appointed members of the Planning Commission (PC) are key to the implementation of good planning principles within the Canyon, including resilience and infrastructure planning. Their intimate knowledge of the community combined with their professional advice supports robust decision making by the Council, which is needed to prepare for or respond to a crisis.



EMIGRATION CANYON
METRO TOWNSHIP

Emigration Canyon Community Council

The Community Council facilitates information sharing across the Emigration Canyon Community via a range of media and also sponsors community events that enhance social connectedness and cohesion. Members of the Community Council can and do serve as trusted and connected community leaders who provide essential information to residents in a disaster.



Emigration Canyon Improvement District

The Emigration Canyon Improvement District (EID) is a local special service district created under Utah Law. As such it is an independent governmental entity governed by a Board of Trustees. The EID is the culinary water provider for portions of Emigration Canyon and therefore establishes rules and regulations that govern this service including setting rates and fees. The EID also has the power to establish a property tax to help fund the services it provides. In recent years EID have installed fire hydrants in the canyon, which provide fire protection to most, but not all of Emigration Canyon residents. EID also supports water quality education and assists with septic system installation in some cases. The EID's role in planning and zoning is limited. The EID does not have any power to adopt land use control ordinances or approve or deny any land use applications, but EID input on the adoption and implementation of general plans is needed to assist with long term planning regarding culinary water provision in the Canyon. The Municipality's plans will affect future demands on the EID for services and EID's capacity will affect the Municipality's ability to allow future growth.

Unified Fire Authority

Station #119 is located mid-canyon on Emigration Canyon Road and can therefore provide quick response times to any incident that occurs in the canyon. The station also provides the only indoor public gathering space within the boundaries of the

Municipality. The space is regularly utilized by the community for community meetings and events. Additionally, Emigration Canyon has a high wildfire threat level, making the education provided by local Firefighters regarding prevention and preparedness an essential component of resilience planning in the canyon.



Unified Police Department

The Canyon Patrol Unit of the Unified Police Department (UPD), consisting of two Sergeants and 19 Officers, provide all aspects of law enforcement services within the canyon areas of Salt Lake County, including Emigration Canyon. Because no health care or hospital services are located in the canyon itself, UPD officers can provide the quick response needed to ensure the health and well-being of residents and visitors to the area.





6.2 EXISTING CONDITIONS

Resident with Smokey the Bear. Courtesy of Lisa Tippetts.

6.2.1 Social Cohesion

The resilience of a community; its ability to change, adapt, and transform in positive ways and within a reasonable timeframe following hardships and disasters, is dependent upon social factors as much as physical ones (Fonseca et al., 2019). Many resilience initiatives around the world consider the level of social cohesion within a community to be a key characteristic needed to support resilience (Resilient Rotterdam, n.d.). Social cohesion is high when a society or community works to ensure the well-being of all its members, fights exclusion and marginalization, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward social mobility (Organization for Economic

Co-operation and Development, 2012).

In Emigration Canyon, any initiatives that strengthen networks and build trust, or support community activities and social interactions (Aldrich and Meyer 2015), contribute to the social cohesion of the canyon community.

Social Networks

Formal and informal social networks can facilitate the rapid spread of information and mobilize community members to take action in preparation for or response to an event such as a natural hazard. Resources such as medical supplies, emergency funds, tools or personnel can also be quickly mobilized by relying on the loose connections that exist

between and across agencies, organizations, and interest groups (MacGillivray, 2018). Low levels of trust across and between these groups can hamper effectiveness and slow response times, therefore reducing social resilience (Straub et al., 2020).

Emigration Canyon relies on a range of formal and informal methods of information dissemination and community mobilization. There is anecdotal evidence to suggest that these methods can reach many canyon residents, but speed, accuracy, and coordination across the range of methods could be improved.

Discrepancies in access to communication can complicate the efficient functioning of

both formal and informal social networks in Emigration Canyon. According to the Salt Lake County Health Department's Community Health Data Dashboard (Healthy Salt Lake, 2020), which draws on US Census data from 2014-2018, Emigration Canyon residents have a high level of internet and computing device access, but not all households have access. Approximately 87.5 percent of households have an internet subscription (similar to Salt Lake County with 85.9 percent) and 96.8 percent of households have one or more types of computing devices (similar to Salt Lake County with 94.4 percent). Additionally, reliable high-speed access to the internet varies across the Canyon, and no one in the Canyon has access to fiber optics, considered to be the most reliable internet access to date (see Table X for details).

An additional barrier to efficient communication that could be relevant for the area is 'linguistic isolation' – households that are linguistically isolated due to language barriers may have difficulty accessing services that are available to fluent English speakers. The Salt Lake County Health Department's Community Health Data Dashboard (Healthy Salt Lake, 2020) reports that Emigration Canyon has a 4.8 percent linguistic isolation level, which is slightly higher than that of Salt Lake County at large (3.4 percent).

Community Activities

Participation in community activities such as parades, fairs, and block parties that include moderator-led discussions of topics of interest to the community (e.g. the environment or

Formal and Informal Information Resources

- National Emergency Alert System (EAS) – National public warning system that requires radio and TV broadcasters, cable TV, wireless cable systems, satellite and wireless operators to provide the President with capability to address the American people within 10 minutes during a national emergency.
- CodeRED program – Opt-in telephone, email, text, and social media emergency warning system (e.g. evacuation notices, utility outages, fire, floods), available to Canyon residents and to visitors via the CodeRED app.
- News/radio stations
- Police (UPD) and Fire (UFA)
- [EC Metro website](#)
- [ECCC website](#)
- EC Metro and ECCC email lists
- Emigration Canyon Newsletter – Paper circulation twice annually to all residents, more frequent digital copies but only go to a subset of canyon residents.
- Public EC Metro/ECCC meetings
- Social media (e.g. Facebook, Twitter)
- Neighborhood chats/apps (e.g. Nextdoor app)
- Ham/amateur radio (local group of approximately 15 users)



Residents serving breakfast at the Firewise Fair, photo courtesy of Lisa Tippetts.

school choice), have been empirically proven to enhance social cohesion and trust among participating groups and individuals (Aldrich & Meyer, 2015). A list of some key community activities that support resilience are included in Table 6.1 below.

The novel COVID-19 pandemic, which arrived

in Utah in March 2020, has prevented large community gatherings throughout much of the writing of this plan. Many Emigration Canyon residents have adapted to the new normal and continued to participate in some community activities, such as EC Metro meetings, using online platforms during

this time. Other ways that the community has adapted include increased use of social media to stay connected, neighborhood mask making events, and outdoor music events or gatherings that do not involve food or drink sharing.

Other Social Factors

In order to prepare hazard mitigation efforts that consider the whole community, jurisdiction-specific social nuances must be understood, and key factors are highlighted in Table 6.2.

While there is a high percentage of residents over the age of 65 living in Emigration Canyon, only 5.2 percent of these residents reported living alone, compared to 24.2 percent in the same demographic who live alone across Salt Lake County. This statistic suggests that this demographic of Emigration Canyon residents is generally less socially isolated than residents of Salt Lake County.

Emigration Canyon residents are also more likely than residents of Salt Lake County to own their own homes (81.7 percent versus 63.1 percent), and generally have a higher level of educational attainment (68.9 percent of people 25+ have a Bachelor's Degree or higher, compared to 34.5 percent in Salt Lake County). These factors suggest that Emigration Canyon residents have good access to a suite of resources that can help them to cope in a crisis.

A range of health factors can also complicate access to social networks and reduce mobility. These are included in Table 6.3.

Program or Event	Contribution to social cohesion and community resilience
Firewise	Firewise programs teach people how to adapt to living with the potential of wildfire to prevent losses. The Emigration Canyon Community Council has been at the forefront in developing a Firewise program and information for Emigration Canyon. A popular community education event is held every year for canyon residents. http://www.emigrationcanyon.org/events/firewise/
Community Emergency Response Team	Emigration Canyon Community Council has offered community response training sessions every year. In 2020 more than 20 people signed up to participate, but the training was postponed due to COVID-19 health concerns.
Musical events	Benefit concerts are occasionally held at Camp Kostopulos. These events provide Canyon residents with an opportunity to socialize with neighbors and friends in an informal setting, deepening, reinvigorating, or developing new relationships.
Neighborhood gatherings	Skycrest neighborhood occasionally holds musical events in the local park. Pinecrest occasionally holds neighborhood potlucks.
Canyon clean ups	Emigration Canyon Community Council holds Canyon clean-up events twice a year. This provides Canyon residents with an opportunity to connect to each other and the Canyon environment.
Local businesses	Canyon residents frequent Ruth's Diner and Emigration Brewing Co with some regularity. There is a large room in upstairs at the Brewery that could potentially be used for public meetings in addition to private gatherings, although there are some parking limitations. Camp Kostopulos also has a large room that can be used for indoor gatherings if needed, although it too is usually reserved for private rather than public functions.
Religious institutions	Although there are no churches located in the Canyon, the Emigration Ward of the Church of Jesus Christ of Latter-Day Saints meets nearby at the mouth of the Canyon, and includes canyon residents.

Table 6.1: Key community programs or events that contribute to social cohesion and community resilience in Emigration Canyon.

Key Social Factors to Consider for Emigration Canyon Resilience Planning	Number in Community
Members of the community over 65 years old	222
Members of the community under 18 years old	425
Members of the community that identify as having disability status	66
Members of the community that speak English less than "very well"	6
Members of the community living below the poverty line*	157
The number of mobile homes in the community	0
Members of the community without health insurance	0
Occupied housing units with tenants without a vehicle	11
Housing units without heating fuel	0

Table 6.2: Key Social Factors to Consider in Resilience Planning, from (Emigration Canyon Metro Township, 2019) *Poverty levels and all other data from the US Census Bureau American Community Survey, 2017.

Health Factors (2014-2018)	Emigration Canyon	Salt Lake County
Persons with cognitive difficulty	2.3%	4.0%
Persons with a hearing difficulty	4.7%	2.7%
Persons with a self-care difficulty	1.9%	1.7%
Persons with a vision difficulty	1.3%	1.6%
Persons with an ambulatory difficulty	3.1%	4.5%
Persons with a disability living in poverty (5-year)	0.0%	18.3%

Table 6.3: Health factors that can complicate access to social networks and reduce mobility. Source: Salt Lake County Health Department Community Health Data Dashboard (Healthy Salt Lake, 2020).

6.2.2 Hazards and Risks

The geography and climate of Emigration Canyon renders the area more or less at risk for certain types of hazards and risks. Emigration Canyon is characterized as Intermountain Semi Desert (US Geological Survey, 2000). Emigration Canyon experiences all four seasons with moderately hot summers and cold winters. Emigration Canyon's climate, like Salt Lake County and

the rest of the southwestern states, is very dry, with an average annual precipitation of approximately 23 inches, though the Canyon receives more precipitation than Salt Lake Valley (Best Places, 2020).

According to the Emigration Canyon Hazard Mitigation Plan (Emigration Canyon Metro Township, 2019), the top five hazard events, based on a probability factor times the sum of weighted impact factors, are: Wildfire,

Flooding, Earthquake/Severe Winter Weather (tied for third place), Landslide and Slope Failure, and Severe Weather. A few additional hazards and risks that are likely to have a significant impact on the health and well-being of Emigration Canyon residents and visitors in the years to come, but operate across canyon boundaries, are also included below. These are Public Health Epidemic/Pandemic, Air Quality, and Climate Change.

The potential for a petroleum spill is also relevant to consider in future hazards management (due to the presence of an active pipeline through the Canyon), but this did not make the top five hazards in the 2019 mitigation plan. Additional concerns for the Municipality, in the event that any hazard affects the canyon, are 1) the limited ingress and egress to and from Emigration Canyon and 2) the lack of access to reliable wireless and internet in event of an emergency. These limitations pose major concerns as they relates to the multiple natural and manmade hazards that could affect the community.

Flooding

Stream flooding is highly likely and has the potential to cause roadway washouts. Emigration Creek and its tributaries are the principal drainages carrying runoff through Emigration Canyon. Most creeks have well-defined channels that have experienced historic flooding. Some small drainages flow continuously and some intermittently throughout the year. All drainage tributaries have the potential for high flows during the spring runoff period. After a winter of heavy

precipitation, many parts of Emigration Canyon dealt with high water and flooding issues during the Spring of 2011. Jurisdictional wetlands have been delineated by the US Army Corps of Engineers along Emigration Creek. Chances of riverine flooding greatly increase post-wildfire.

Wildfire

There is a high risk of wildfires in Emigration Canyon (Figure 6.2). While the community is a Firewise community (Table 6.1), fires are hard to fight given the area’s terrain. Residential development in Emigration Canyon often

interfaces with areas of undeveloped canyon lands that exist in a natural state. This bordering of residential development on open lands or what is termed the Wildland-Urban Interface (WUI) is part of the charm of the canyon for many residents. The WUI area has inherent risks associated with it, mainly dangers from a wildfire that can and do occur in the foothills and canyons from time to time. Whether these fires are started due to natural causes or by human activities, they can quickly spread across the thicker natural vegetation (fuels) of undeveloped areas and

threaten adjacent residential development. According to locals, Pinecrest is the only area in the canyon where fire suppression is considered to be inadequate.

Earthquake

No known active faults have been mapped within Emigration Canyon Township. The nearest active fault is the Salt Lake segment of the Wasatch Fault, located about two-and-a-half miles west of the mouth of Emigration Canyon. Seismic hazards in Emigration Canyon will come primarily from the seismic waves that are generated during large earthquakes, should such an event occur. However, given the nature of sediments found in the Emigration Canyon, the soil liquefaction potential is typically considered below average. The 5.7 magnitude earthquake centered in Magna, Utah that occurred at 7:09 AM MDT on March 18, 2020, could be felt in Emigration Canyon, but no substantial damage was reported in the Canyon as a result of the quake.

Severe Winter Weather

Winter storms are common in Emigration. Poor drainage in some areas of the canyon has historically created road icing in the winter and subsequent traffic safety issues, but the road repaving project undertaken in the summer of 2020 has aimed to address this issue. There is also an increased risk of avalanche in some areas of the Canyon, particularly in the Pinecrest area.

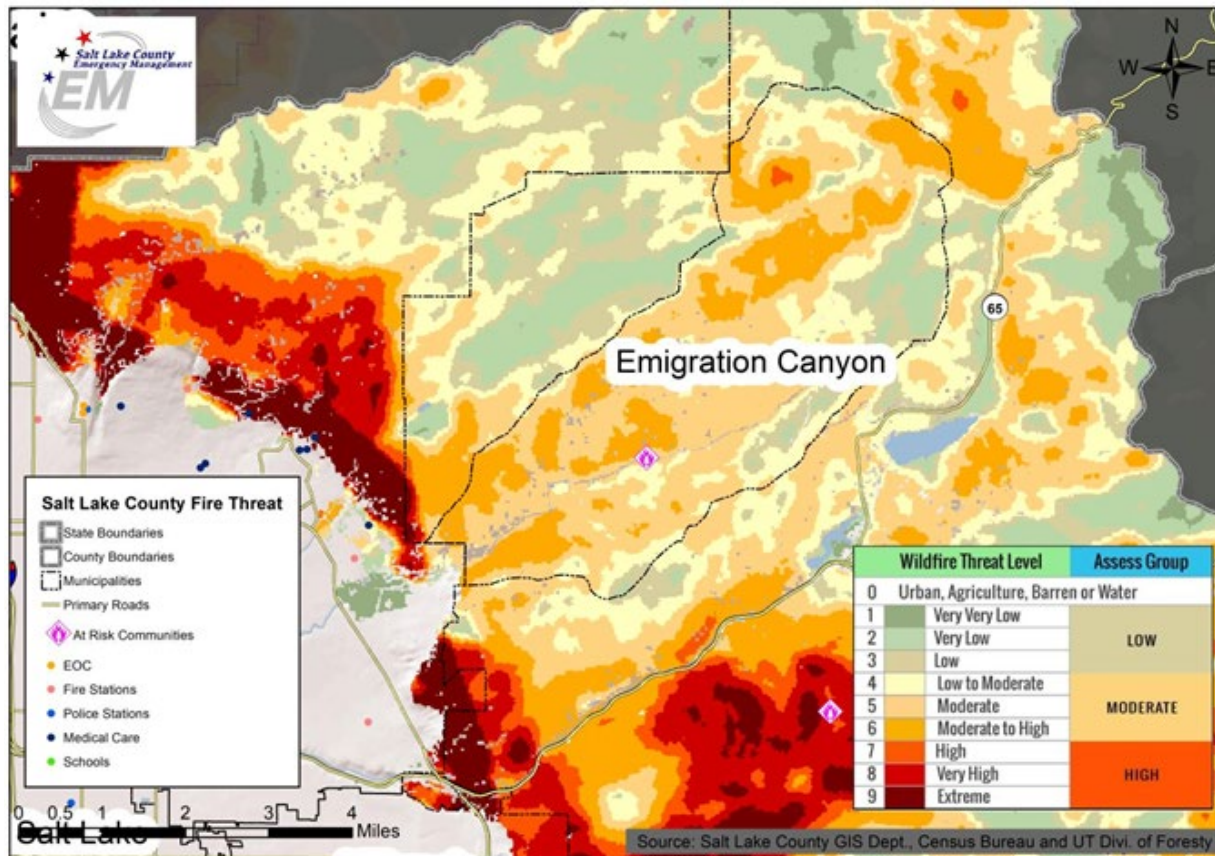


Figure 6.2: Wildfire risk for Emigration Canyon. Source: (Emigration Canyon Metro Township, 2019).

Landslide/Slope Failure

Elevations in Emigration Canyon range from about 5,100 feet near the mouth of canyon to just over 8,900 feet at the summit of Lookout Peak along the northern boundary of the Municipality. Due to the natural topography, slope stability issues are the most prominent geologic hazard encountered in the canyon. Historically, landslides have occurred in Emigration Canyon, especially in the steep areas of Pinecrest. Much of the Canyon is dominated by lands where slopes exceed 30 percent. Several places in Emigration Canyon

would experience road closure if a landslide were to occur.

Severe Weather (Wind)

Given the differing elevation and a large number of trees in the town, heavy winds can occur and impact some areas much worse than others, typically involving knocking large trees over, which is especially problematic when a fallen tree blocks a road.

Public Health Epidemic/Pandemic

Public Health Epidemic/Pandemic While a public health epidemic or pandemic ranks

sixth based on the probability and severity of occurrence in the Hazard Mitigation Plan (Emigration Canyon Metro Township, 2019), the COVID-19 pandemic, which arrived in Utah in March 2020, is still causing global disruptions as of the writing of this plan. People aged 65 years and older, those who are immunocompromised, or those with underlying conditions such as diabetes, are more susceptible to suffer severe illness or death. Governments, communities, and individuals have altered their habits in attempts to prevent the spread of the virus.

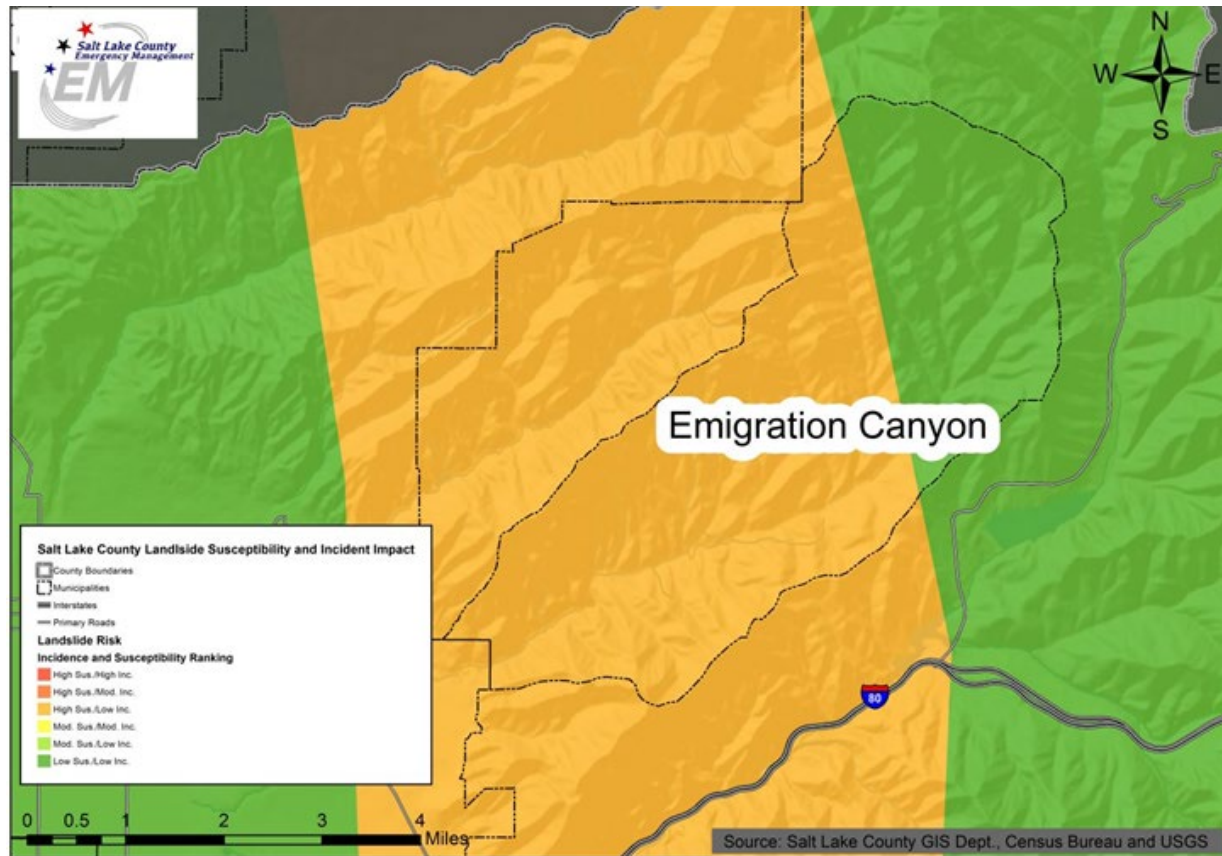


Figure 6.3: Landslide Susceptibility and Incident Impact Potential. Source: (Emigration Canyon Metro Township, 2019).



Wind Damage, September 8, 2020, Emigration Canyon trees uprooted. Photo courtesy of Joe Smolka.

The full impacts and implications of this pandemic, including its impacts on planning and development, are yet unknown.

Air Quality

The Salt Lake Valley has some of the worst air quality in the nation, ranking 7th worst among large metro areas in the United States in a 2020 report (Maffly, 2020). While this issue is not as much of an immediate concern for residents of Emigration Canyon, as their geography prevents all but the worst air quality days from having severe impacts on Canyon residents, the collective issue of Salt Lake Valley air quality is a top concern for Canyon residents (see Appendix C). This topic is covered in more depth in Chapter 5.

Climate Change

Utah's climate is changing. Over the last 100 years, the state has warmed by almost two degrees (F). Heat waves and drought are more common, and snow is melting earlier in spring. While climate change is occurring on a global scale, the effects are felt at the local level. In the coming decades, Emigration Canyon is likely to see climate change effects such as decreased snow pack and water flows, more frequent and intense wildfires and storms, increasing invasive species and increasing rates of health effects such as respiratory disease, asthma prevalence and heat-related disease (US Environmental Protection Agency, 2016).

6.2.3 Infrastructure

There are three different kinds of infrastructure that support community health and wellbeing and facilitate community resilience in the event of a disaster or change; these are physical infrastructure, digital infrastructure, and social infrastructure. While there is some overlap among these categories, it is useful to separate them in order to highlight the crucial role of each in maintaining community resilience when confronting a challenging situation such as a natural hazard or an economic downturn.

Physical Infrastructure and Related



Photo above: Emigration canyon pipeline, courtesy Intermountain Region USFS.

Services

For each of the physical infrastructure types listed in the subsections that follow, it is important to consider the age, condition, location, and role the infrastructure plays locally – these are crucial factors in determining how these sectors will be impacted by events such as flooding (intensity, frequency), wildfires, etc.

Utility and Energy Right of Way

There are many designated utility rights-of-way in Emigration Canyon. These existing rights-of-way (ROWs) include pipelines that carry crude oil (Chevron)

and natural gas (Questar), as well as fiber-optic communication cables and electrical transmission lines. Although there is fiber-optic cable in the canyon, it doesn't serve canyon residents, but instead provides an important regional access line. Internet is dial-up, DSL or satellite. There is some cellular infrastructure in the Canyon, but coverage is not always reliable due to Canyon geography. TV is limited to airwaves and satellite. These ROWs are an important feature in the canyon as they often serve as the de-facto trails and function as wildlife corridors.

Water system and supply

The main source of water provided to Canyon residents is through the public water system operated by the Emigration Canyon Improvement District (EID). EID's water system covers approximately 70% of the area of the Canyon as of December 2020. The system begins just below the Fire Station, up the main canyon road to the lower portion of Pinecrest, Killyons Lane and the Emigration Oaks Development. The water system comprises two reservoirs totaling 1.3 million gallons of storage capacity and fire hydrants that meet or exceed the current fire flow codes. To date, all water provided by EID comes from three deep source wells. EID currently provides water to over 300 homes, but expects to provide water to as many as 500 potential homes located in the water system. There are over 100 homes from lower Pinecrest, Killyons and along the Main Canyon Road that rely on private wells for water.

The 60 lots of the Emigration Place

Development, plus five or six additional lots nearby, receive their water from Salt Lake City Department of Public Utilities (SLCDPU). SLCDPU runs a water line from Salt Lake City to provide water to Emigration Place and Camp Kostopulos and provide hydrants for fire protection to the Emigration Place Development and some hydrants along the Main Canyon Road to the mouth of the Canyon. Sunnydale Lane area residents rely on private wells for water and do not have access to the SLCDPU waterline.

There are two smaller public water systems in Emigration Canyon. Spring Glen Water Company provides water to approximately 16 homes located around Skycrest Lane. The system has a storage capacity of 60,000 gallons. This system is located within the EID's water system as an alternative source of water. When the EID expanded its water system in 2007, it included the Skycrest Lane area to provide an alternative water supply and provide adequate fire protection. The second public water system includes the Pinecrest Pipeline Operating Company (PPOC), which provides water to approximately 20 homes located in the Upper Pinecrest area. PPOC does have a few hydrants located in the area, however, the storage capacity would not meet current fire flow code nor provide adequate fire protection. The remainder of the homes in the area rely on private wells for water.

Typical system-wide indoor water use is in the range of 50,000-60,000 gallons of water per day outside the summer months. The total system water use now reaches about 250,000

gallons per day during the hottest and driest summer months when irrigation use is at peak demand. The EID promotes water conservation by canyon residents through a pricing structure that increases with volume used.

Land 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 with care. Public drinking water suppliers are required by state and federal laws to protect water quality in their wells by designating water protection zones and implementing restrictions that apply to each specific zone. Depending on the designated groundwater protection zone, septic systems may be prohibited or restricted. Protection of drinking water quality falls under the jurisdiction of both the Division of Drinking Water and Salt Lake County Health Department and is overseen by the EPA. The location of groundwater protection zones is restricted information under state and federal laws. For access to this information individuals can register with the Department of Environmental Quality and then access their interactive map here: <https://enviro.deq.utah.gov/>

The following regulations, Utah code, and ordinances apply to public water providers and protect drinking water in public wells:

- Utah Administrative Code, Rule R 309-600
- Salt Lake County Health Department,

regulation #13

- Salt Lake County Code of Ordinances, Chapter 9.25
- Emigration Canyon Metro Township, ordinance 18-18-01

Examples of how these regulations have affected land use and wastewater systems in Emigration Canyon:

- EID has installed a cluster system to divert wastewater from a small group of homes away from a groundwater protection zone associated with one of their wells.
- SLCDPU has prevented the installation of some standard or alternative septic systems because of concerns about water quality implications associated with one of the groundwater protection zones that they oversee.
- A permit to build a new home in a groundwater protection zone has been litigated due to groundwater protection regulations associated with the area.

Septic, wastewater, stormwater

In 2002 Emigration Creek was listed as an impaired waterbody for recreational use by the Utah Division of Water Quality (DWQ) based on data collected showing high bacterial levels (fecal coliform). “Impaired waters” are those waterbodies that currently fail to meet water quality standards established by the State. Subsequent to this listing, the State is required to develop a Total

Maximum Daily Load (TMDL) water quality study to establish pollutant level reductions in impaired waters and achieve water quality standards. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards. The TMDL process results in load allocations to each pollutant contributor. These allocations often result in regulatory controls and mandates. More details on water quality are included in Chapter 5: Environment.

Coordinated monitoring efforts by the State Division of Water Quality, Salt Lake County, Salt Lake Valley Health Department (SLVHD), Salt Lake City, University of Utah and U.S. Geological Survey (USGS) have suggested that potential origins of E. coli contamination in Emigration Creek include improper solid waste disposal, stormwater runoff, domestic animals including pets, wildlife, seepage from old sewage holding vaults, and poorly sited or failing septic tank leach fields (Hubbard-Rice, 2015).

All existing and new development is required by State Law to provide individual septic tank drain fields and holding vaults. The Salt Lake Valley Health Department is charged with the responsibility of regulating these facilities for compliance with laws governing groundwater contamination and source water protection. Due to the terrain and physical limitations of Emigration Canyon, a canyon-wide sewer system is not feasible or practical and is unlikely to be developed. Smaller treatment systems, called cluster systems, could be

feasible in some areas of the canyon as an alternative to an all-inclusive sewer system.

The State Division of Water Quality presently does not consider urban stormwater runoff as “wastewater” but does require that best management practices (mainly erosion and runoff controls) be implemented during both construction and post-construction phases.

Roads

Due to a combination of physical and use factors, multiple hazards are associated with the main canyon road. The popularity of the main canyon road as a destination for cyclists and other alternative mode users has “exploded” in recent years according to some locals (Salt Lake County, 2012). During the COVID-19 pandemic that started in 2020, sightseers seeking to escape the confines of Salt Lake City were also reported to break previous use records]. The popularity of the road with all kinds of users has led to ongoing ‘share the road’ issues between vehicle drivers and other mode users, which are compounded by the lack of consistent recreational bicycle lanes in some areas where the canyon is too narrow to make them feasible. Additional road hazards can arise from loose rocks, drainage issues, and visibility constraints. Road maintenance and improvement projects were initiated in 2020 based on the recommendations provided in a comprehensive road report (Lochner, 2016) and will continue as funding is available (see Transportation Chapter for details). There are several private roads located in Emigration Canyon that can further complicate

emergency and/or hazard response due to non-standard road widths and/or irregular maintenance.

Waste and Recycling

Although waste and recycling services are provided to canyon residents year-round, the provision of these services can be challenging under some conditions, especially in the more distant corners of the Canyon, or areas with non-standard roads. Wasatch Front Waste and Recycling (<https://wasatchfrontwaste.org/>) has provided three community dumpsters that service homeowners on steep, narrow, unpaved roads who cannot receive curbside trash/recycling service. In other parts of the Canyon, waste and recycling are picked up weekly. Vouchers for fee waivers for people who haul their trash to the landfill themselves can be obtained from Emigration Canyon's Community Council Representative. Wasatch Front Waste & Recycling District allows additional cans, for an additional annual fee. Waste and recycling are taken to the Trans-Jordan landfill located off Bacchus Highway in South Jordan City.

Parks and Open Space

Publicly owned lands constitute the majority of land area in Emigration Canyon. These lands contain many of the trails that exist in the canyon. Existing trails are identified in the Salt Lake County Current Regional Trails Map (Salt Lake County Parks and Recreation, n.d.), while potential future trails are identified in the adopted Emigration Canyon Trails Master Plan (Salt Lake County Parks and Recreation, 2007) and updated 2019 priority projects

list (Emigration Canyon Community Council, 2019). Canyon trails are generally multi-use designated, accommodating a mix of hiking and biking activities. Limited infrastructure exists to support these activities, which has led to some conflict among Canyon residents and visitors over parking and trail access. The narrow, non-standard Canyon roads, particularly in the upper limits of Pinecrest and Killyons, are easily congested by visiting parked cars.

Age and Type of Structures

The age and type of structures influence how most structures hold up after disasters. According to the Utah Seismic Safety Commission, structures built before 1975 are unreinforced masonry (2016). This means that structures do not have modern safety features, such as steel-reinforcements, roof to wall attachments, and wall to floor attachments. Such features enable the structure to handle disturbances, such as earthquakes.

- 356 structures were built in 1980 or later, indicating that they are built to better withstand earthquakes.
- 298 structures were built before 1970 and are unlikely to have earthquake safety features unless retrofitted later.
- 94 structures were built between 1970 and 1979 and may or may not have these safety features.

The age and type of structures impact safety and livability concerns as well. Older homes are more likely to deal with lead paint (widely used until a nationwide ban in 1978), inefficient

heating and cooling systems, low accessibility, high levels of radon gas, asbestos, unhealthy water quality, and poor indoor air quality (US Department of Health and Human Services, 2009). These characteristics negatively impact physical and mental health, with possible effects including increased likelihood for cancer, lead poisoning and developmental delays, depression, and respiratory disease (ibid). Older homes generally require more maintenance to remain livable and to combat outdated standards. If maintenance is neglected, whether due to its expense or the inability of the resident to conduct the repairs, the household may expose themselves to further risk.

Digital Infrastructure

Digital infrastructure comprises the physical resources that are needed to enable the use of data, computerized devices, methods, systems, and processes. Digital infrastructure has rapidly become indispensable to a high functioning society and is tightly intertwined with the quality of life of its citizens. Access to key components of a good quality of life such as jobs, education, public services, and healthcare is increasingly provided via high-speed internet and associated digital devices (Tomer et al., 2020). This situation has been intensified by the COVID-19 pandemic which has rapidly normalized work and school-from-home processes, thus illuminating the “digital divide” that separates high-income and low-income neighborhoods, or rural and urban ones, in America (Hegel & Wilding, 2019).

Emigration Canyon

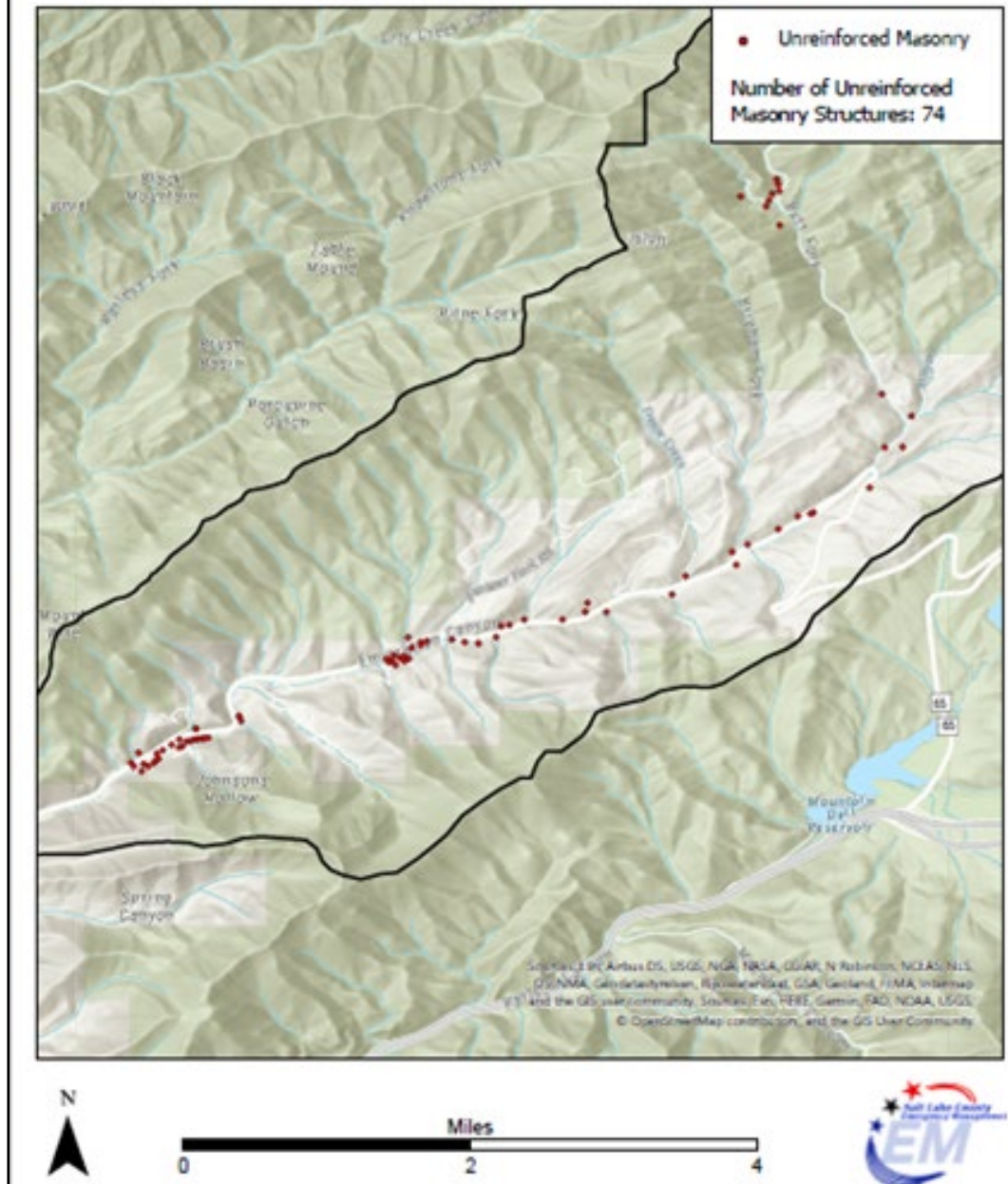


Figure 6.4: Unreinforced masonry in Emigration Canyon. Source: Salt Lake County Emergency Management Team.

Emigration Canyon houses some wireless telecommunications infrastructure, mainly at a site on Little Mountain. This property, owned by Salt Lake City, houses equipment for numerous service providers. Despite this concentration, the Municipality does have numerous areas where wireless phone and other providers encounter service issues and problems (see Table 6.4 for details on broadband access).

Upgrading and expanding services in the canyon is dependent upon several factors, including finding a suitable site (e.g. cannot impact aesthetics or intrude on designated ridgelines, would overcome “dead spots”). This has proved challenging. Several companies have looked at enhancing services in the canyon in recent years, but few advances have been made other than a new wireless telecommunication facility, intended to improve emergency communication and response, installed by Verizon Wireless in the early 2000s and located across from Stadel Cove. Space in the facility is also set aside for privately-owned wireless radio equipment to facilitate emergency communication functions.

Social Infrastructure

While Social infrastructure includes schools, community groups, outdoor markets, coffee shops, libraries, parks, religious institutions, and other physical assets that create a culture of neighborliness, acceptance, and connection (Landau, 2019). Emigration Canyon’s social infrastructure is extremely limited; the Fire Station, Ruth’s, Emigration Brewery, Camp K and a few parks in the area are the primary locations where social connections might occur and services be provided within the canyon itself. The lack of access to in-canyon health and emergency services can be a concern for aging communities such as Emigration Canyon. However, while the social infrastructure in the canyon is limited, canyon residents still find opportunities to connect and to look after one another. In part perhaps

because the canyon lacks immediate access to many services, community members reportedly rely on one another for assistance and support in ways that may not be needed in a more urban setting, planning and development, are yet unknown.



Firewise fair, photo courtesy of Lisa Tippetts.

Broadband Definitions & Emigration Canyon' Connectivity Rate
<p>Minimum Standard Broadband Speed: a <u>download speed of 25 mbps (megabytes per second)</u> and an <u>upload speed of 3 mbps</u> (Zimmer, 2018). This “basic” can enable a household to use streaming services (such as Netflix or YouTube) on one or two devices without lag, play most online games, and have minimal loading times when surfing the internet (Cooper, 2020). Emigration Canyon Metro Township has coverage for the minimum standard broadband speed.</p>
<p>Average Broadband Speed: a <u>download speed of 100 mbps</u> and an <u>upload speed of 25 mbps</u>. A download speeds of 100 mbps is needed at a minimum for 3-4 people in a household to stream 4K content and play online games simultaneously (Cooper, 2020). Emigration Canyon Metro Township does not have coverage for the average broadband speed</p>
<p>Fiber: a <u>download speed of 1000 mbps</u>. The advocacy organization Broadband Now recommends fiber speeds for those who want more than speeds of 100 mbps; those who stream 4K on multiple devices, play online video games, own smart home/ IoT (Internet of Things) devices, and download very large files (Cooper, 2020). <u>Emigration Canyon Metro Township does not</u> have coverage for fiber speeds.</p>

Table 6.4: Broadband details for Emigration Canyon.

The Socioeconomics of Broadband

High-speed internet access is now more important than ever. It is the gateway to more and better jobs, more educational success for our children, crucial access to public services and quality healthcare, and a higher quality of life. ¹ And it is even more important to understand that those who don't have reliable high-speed internet access can be left behind from these opportunities. There is a “digital divide” that separates high-income and low-income neighborhoods in America. ²

The “Digital Divide” At-a-Glance



Income

According to the 2013 American Community Survey, a household that made more than \$100,000 had a 92% likelihood of having broadband at home. For those who made \$25,000 or less, the chance of having home broadband fell to 47%. ²



Employment

Middle-skill jobs are those that require less than a bachelor's degree while paying at least \$15 an hour – what academics and others often consider a living wage. About 46% of overall labor demand is for middle-skill jobs, and some 82% of all middle-skill jobs are now “digitally intensive”. Jobs that require digital skills pay more and offer greater opportunity for career advancement than jobs without those requirements. ²

Broadband also makes it possible for people to telecommute, which can increase job satisfaction and productivity, decrease work-family conflict and have a positive impact on median household income at the census tract level. ²



Education

The Pew Research Center found that about a third of households with school-age children lacked home broadband in 2013. Another study showed that about half of students surveyed “were unable to complete homework due to lack of broadband and 42 percent said they received a lower grade due to lack of broadband as well.” ²

The digital divide hurts students who don't have a reliable internet connection at home. They lag in their studies and cannot compete well with their peers. They miss out on improving their socioeconomic status and can be more likely to repeat an inter-generational poverty cycle. ³

Sources

1 Regional Digital Economy Plan, 2014, pg. 7

2 *Disconnected: Seven Lessons on Fixing the Digital Divide*, The Federal Reserve Bank of Kansas City, July 2019,

<https://www.kansascityfed.org/community/~media/31dc7512db164fce8ae79ec7709924fd.ashx>

3 “What is the Digital Divide?”, Carmen Steele, Digital Divide Council, February 22nd, 2019, <http://www.digitaldividecouncil.com/what-is-the-digital-divide/>



6.3 PLANNING FOR FUTURE RESILIENCE

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

- Charles Darwin

Firewise fair, courtesy of Lisa Tippetts.

6.3.1 Key Challenges

Key challenges to address when planning for future resilience in Emigration Canyon include:

- A substantial aging population; by 2024, 24.2 percent of the Emigration Canyon population is expected to be over the age of 65 (Esri, 2020). Health factors associated with an aging population can complicate the response to hazards and other emergencies.
- Access to the internet is high in the area, but it is not universal, and not the best quality (see Table 6.4 for details), making communication across the entire canyon a multiple-platform process.
- Linguistic isolation, which may be minor concern at present and could increase as the population in the Canyon diversifies (Esri, 2020), is another factor that can complicate communication with Canyon residents.
- Although poverty is not a major concern for most Emigration Canyon residents, there are households at every income level that are housing cost-burdened (spending over 30% income on housing) (see Appendix D for details). This can create inequities within the Canyon in response to hazards and changes and

place a disproportionate burden on some members of the community if and when a hazard or emergency arises.

- Aging and outdated infrastructure in the Canyon may further complicate response or recovery from hazards and risks, especially when it comes to the roads in the area, some of which are very narrow and may not be maintained to industry standards. Ingress and Egress from the Canyon is an important related concern.

6.3.2 Key Opportunities

The Emigration Canyon community has many opportunities and resources that can be leveraged to support improved resilience planning in the future. These include:

- The relative affluence and high educational qualifications held by the majority of community members position the community to be able to respond to a wide range of challenges that could arise in the area. To support continued strengths in these areas, the community needs to consider investing in two key features:
 - Enhance fiscal capacity/economic resilience of the local government (Harvell, 2018; RUPRI, 2013)
 - Seek opportunities to expand access to fiber-based internet (Table 6.5)
- Strong social networks both within and extending beyond the Canyon boundaries can be counted on to leverage resources relatively quickly and efficiently in a crisis.

- The community has a history of successfully utilizing educational and behavior change programs such as Firewise to address hazards in the area. Additional programs that could be implemented to improve resilience in the area include:
 - Native planting guidelines <https://slco.org/watershed/stream-friendly-practices/choosing-native-plants/>
 - USFS - Stabilization and planting after wildfires <https://www.fs.usda.gov/science-technology/fire/after-fire>
 - Other green infrastructure resources
 - <https://www.epa.gov/green-infrastructure/learn-about-green->
- Green infrastructure programs that rely on natural resources to address hazards and risks

<p>UTOPIA Fiber was created by a group of 11 Utah cities in 2004 to build, deploy, and operate a fiber to the home (FTTH) network to every business and household within their communities. UTOPIA Fiber owns the infrastructure, but you get to choose your internet service provider (ISP) (West Point City, 2019a). UTOPIA bonds for and constructs the fiber infrastructure improvements. The financial obligation of the bond is paid by the residents that use the fiber internet service (West Point City, 2019b).</p>
<p>Google Fiber is only available in certain neighborhoods of Salt Lake County (Downtown, Sugarhouse, Rose Park, & several others) and expansion plans are entirely up to Google. It does not look like there is a way for businesses or government entities to request Google Fiber in certain cities or neighborhoods (Google, 2020). At the moment, this does not look like a viable option to improve the Emigration Canyon’ broadband internet access.</p>
<p>Work with CenturyLink to expand fiber in Emigration Canyon: The MSD Board could attempt to create a public-private partnership with CenturyLink, and work with the provider to expand their fiber infrastructure to more neighborhoods in MSD service areas. The government of Springfield, MO partnered with CenturyLink in their community to expand fiber internet access to residents (Simmons, 2019).</p>
<p>Advocating for more Wi-Fi Hotspots available for checkout at Salt Lake area libraries: a Wi-Fi Hotspot is a portable device that lets you connect electronic devices to the internet virtually anywhere (Salt Lake Community College Libraries, 2020).. The Salt Lake City Public Library currently offers Wi-Fi Hotspots for free checkout, and the Salt Lake County library is beginning to offer them as well. Making more Wi-Fi Hotspots available for free checkout would especially help low-income residents who need more reliable internet access (especially due to the global COVID-19 pandemic) but can’t afford to increase their bandwidth.</p>
<p>“Connect Program”: in August 2020, Salt Lake City partnered with The Church of Jesus Christ of Latter-Day Saints to provide access to a free computer lab in an LDS meetinghouse in the Rose Park neighborhood (Salt Lake City, 2020).</p>

Table 6.5: The options included in this table could potentially expand fiber-internet access to more Emigration Canyon residents, thus improving community resilience. This table is included for reference only and does not represent an endorsement of any of the products or services mentioned.

[infrastructure](#)

- <https://www.slideshare.net/nado-web/green-infrastructure-basic-principles-tools>
- <http://cepd.cap.utah.edu/red-butte-creek-research-symposium-2018/green-infrastructure-research-facility/>

6.3.3 Resilience and Infrastructure Work Program Goals

The following Resilience and Infrastructure Work Program goals were developed with guidance from the GPSC, based on community input, and with consideration for the data, opportunities and challenges outlined in this and previous chapters. The work program can be used to guide the implementation of the General Plan and make progress on Emigration Canyon’s resilience and infrastructure goals. The work program outlines goals, objectives, and actions, with the responsible parties, timeline for implementation, approximate cost, metric for success, and relevant resources also delineated. However, the Emigration Canyon Metro Township Council is the governing body of the Municipality and will determine how best to achieve the goals, objectives, and actions that are included in the work plan, including how best to implement recommendations such as the formation of working groups. Details are included to support implementation but are not definitive.

Goal 6.1: Practice fiscal responsibility and sustainability in all decision-making.

- Objective 6.1.1: Enhance Emigration Canyon Metro Township’s fiscal capacity and economic resilience.
- Objective 6.1.2: Increase collaboration between utility providers and municipal services in timing of roadway and other infrastructure projects.
- Objective 6.1.3: Increase transparency in budgeting and spending decisions.

Goal 6.2: Maintain the infrastructure system in good working condition and ensure that it meets the needs of current and future residents and visitors.

- Objective 6.2.1: Improve the safety, sustainability, and resilience of groundwater resources and associated infrastructure.
- Objective 6.2.2: Maintain the road network in a safe and serviceable condition.

Goal 6.3: Mitigate the effects of climate change, natural disaster risk, and other hazards.

- Objective 6.3.1: Increase responsible

stewardship over energy and resources.

- Objective 6.3.2: Reduce key hazard risks for Emigration Canyon community members.

Goal 6.4: Adapt to climate change, natural disaster risk, and other hazards.

- Objective 6.4.1: Improve integration of emergency-preparedness in local decision-making, community outreach, and planning efforts.
- Objective 6.4.2: Improve communication across all members of the community, including those who may be disproportionately affected by a disaster or change.

Goal 6.5: Ensure that all community members enjoy a sense of belonging and high levels of social connectedness and trust.

- Objective 6.5.1: Improve opportunities for potentially disproportionately affected residents to become engaged in community leadership and service, especially planning and decision-making processes.
- Objective 6.5.2: Increase access to spaces where people from diverse backgrounds feel safe and welcome to gather, play, organize, and engage with one another.



Canyon Cleanup Day, Photo Courtesy of Catherine Harris.

CHAPTER 7: COMMUNITY WORK PROGRAM

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Fall Color. Photo Courtesy of Bill Tobey.

7.1 OVERVIEW

This chapter revisits the work program goals and objectives from all previous chapters and expands on them by adding detailed action items corresponding to each objective.. Each work program was developed from an analysis of existing conditions, the community's feedback, consideration of key underlying

planning concepts, and the community's vision and goals related to that topic. Although the General Plan is divided into distinct chapters, the subjects are tightly interconnected. Because of these relationships, common themes emerge across the work programs, but specific actions related to the chapter topic are

highlighted in each. Explicit overlap and connections have been highlighted in the resources section of the work program where relevant. As a whole, the Community Work Program provides a detailed outline of how the Municipality can achieve its envisioned future.

CHAPTER 2: LAND USE & CHARACTER AREAS WORK PROGRAM

GOAL 2.1: PRESERVE THE CULTURE, IDENTITY, AND CHARACTER OF EMIGRATION CANYON METRO TOWNSHIP'S BUILT ENVIRONMENT.

OBJECTIVE 2.1.1: ENHANCE PROTECTION OF THE UNIQUE CANYON ECOSYSTEM AND SCENERY.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Adopt the Ridgeline Protection Areas identified and delineated in the previously adopted Emigration Canyon General Plans (1999/2012).	PC, PDS	Immediate	Staff time	General Plan Adopted	Salt Lake County Planning and Development Services, 1999; Salt Lake County, 2012
b. Preserve existing zoning standards that protect the unique canyon ecosystem and scenery, including those that mandate large-lot zoning where such zoning is appropriate for the mountain setting.	PC, PDS	Immediate	Staff time	General Plan Adopted	
c. Establish a working group, at EC Metro's discretion, to develop guidelines and standards for new developments that will incorporate principles of connectivity and open space design, such as cluster subdivisions, where feasible and appropriate.	PC, PDS	Highest Priority	Staff time	Working group established	Sustainable Development Code Ch 3 Land Use and Community Character
d. Encourage subdivision design that promotes physical connectivity and multi-modal mobility between existing developments and proposed new ones.	PC, PDS	Priority	Staff time	Guidelines established, connectivity enhanced	
e. Encourage any new residential development to infill already existing neighborhoods, rather than building on currently undeveloped lands.	PC, PDS	Priority	Staff time	Guidelines established, connectivity enhanced	
f. In adopting ordinances, consider working group recommendations regarding enhanced standards and guidelines for new developments.	PDS, PC, EC Metro	Encouraged	Staff time	Ordinance adopted	

OBJECTIVE 2.1.2: IMPROVE THE SAFETY, SUSTAINABILITY, AND RESILIENCE OF THE BUILT ENVIRONMENT.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support land use and development patterns that incorporate nature, scale and use into the built environment and increase public awareness and responsibility toward the natural environment.	PC, PDS	Immediate and ongoing	Staff time	Approved project assessment	Sustainable Development Code Ch 1-2 Low-impact Development
b. Establish a working group, at EC Metro's discretion, to develop appropriate design guidelines to address relevant safety, sustainability, and resilience issues and update General Plan as needed (e.g. architectural compatibility with surrounding environment, utilization of local and/or sustainable materials and technologies in new construction, natural resource and roadway constraints).	EC Metro, PC, PDS	Strongly Encouraged	Staff time	Working group established, guidelines produced	See also objective 5.2.1a, 6.2.1a
c. Develop and adopt ordinances to progress working group guideline recommendations.	PC, EC Metro, PDS	Encouraged	Staff time	Ordinance(s) adopted	N/A
d. Adopt a waterwise ordinance.	PC, EC Metro, PDS	High Priority	Staff time	Ordinance adopted	DNR Conservation Program
e. Encourage compliance with Firewise guidelines and ordinances.	EC Metro, ECCC, UFA	Immediate and ongoing	Staff time	Increase in participation and compliance	Berry et. al., 2016
f. Develop guidelines to incentivize landowners to install renewable energy technologies and green infrastructure on their properties.	EC Metro, PC, PDS	Strongly Encouraged	Staff time	Guidelines developed	Sustainable Development Code Ch 1-2 Low-impact Development
g. Seek funding to support renewable energy and green infrastructure incentivization efforts.	PDS	Encouraged	Staff time	Grants submitted	WFRC , EPA

GOAL 2.2: ENHANCE COMMUNITY CONNECTEDNESS AND SENSE OF PLACE.

OBJECTIVE 2.2.1: INCREASE CONNECTEDNESS AND SENSE OF PLACE WITHIN AND BETWEEN CHARACTER AREAS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Establish a working group, at EC Metro's discretion, of local artists, educators, and residents to develop historic markers, educational signage, and wayfinding signage.	ECCC, PDS	Strongly Encouraged	Staff time	Working group established	N/A
b. Seek funding to support the establishment of historic markers, educational signage, and wayfinding signage.	ECCC, PDS	Encouraged	Staff time, grant match (\$)	Grants submitted	Utah Funding Directory
c. Consider future Ag/FR Zone conflicts, especially those associated with animals, and update zoning/ordinances as needed.	PC, PDS	High Priority	Staff time	Assessment conducted, updates made as needed	N/A

OBJECTIVE 2.2.2: INCREASE SPACES FOR LOCAL COMMUNITY GATHERINGS AND RECREATION.

Actions	Lead(s)	Priority	Cost	Metric	Resources
1. Conduct a study of viable local park/open space access interests, needs, and future requirements for existing communities and new subdivisions.	PDS	Highest Priority	Staff time	Completed study	Sustainable Development Code Ch 6 Healthy
2. Progress local park/open space access study recommendations as resources become available.	PC, PDS	Priority	Staff time	Recommendations incorporated into guidelines, ordinances, and projects	

GOAL 2.3: PRESERVE AND ENHANCE ECOLOGICAL FEATURES, VIEWSHEDS, WILDLIFE CORRIDORS, AND OPEN SPACE.

OBJECTIVE 2.3.1: IMPROVE MANAGEMENT OF EXISTING OPEN SPACE AMENITIES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Apply for funding to support trails, bathroom and/or parking facility development in high priority open space areas already identified in previous plans.	PDS, Engineering, ECCC	Immediate and ongoing	Grants and grant match (\$), Staff time	Grants submitted	UORG
b. Develop trails, bathroom and/or parking facilities in high priority open space areas already identified in previous plans as funds become available.	PDS, Engineering, ECCC	Immediate and ongoing	Grants and grant match (\$), Staff time	Areas developed to enhance and manage open space access	Salt Lake County Parks and Recreation, 2007; Emigration Canyon Community Council, 2019
c. Conduct a recreational use study of Emigration Canyon.	PDS	Highest Priority	Staff time	Completed study	American Trails
d. Conduct an open space area plan for Emigration Canyon, including updating existing conservation easements and other ownership and conditions data, and identifying areas for preservation that have public benefit for preservation of open space, scenic views, trails, and critical wildlife habitat.	PC, ECCC, PDS	Highest Priority	Staff time	Completed plan	See also: Ch 5 Environment Work Plan
e. Progress open space plan recommendations as resources become available.	PC, ECCC, PDS	Priority	Staff time	Projects progressed	N/A
f. Dedicate funding for land acquisition/ education/outreach to preserve open space and wildlife habitat/corridors and encourage conservation easements in alignment with open space area plan recommendations.	ECCC, EC Metro, UoL	Strongly Encouraged	Staff time, grant match (\$), other \$	Funding available	See also: Ch 5 Environment Work Plan
g. Develop a holistic environmental review checklist to assess proposed new developments.	PC, PDS	Immediate and ongoing	Staff time	Environmental review process established	HUD Toolkit

h. Limit development that encroaches on the viewshed, threatens surface or groundwater quality, increases noise pollution, or infringes on critical plant and animal habitats and migration paths.	PC, EC Metro, PDS	Immediate and ongoing	Staff time	Approved project assessment	N/A
g. Incorporate current Wildland Urban Interface guidelines into planning and zoning in order to increase the resilience to wildfire.	Utah DNR, PC, EC Metro	Immediate and ongoing	Staff time	Recommendations incorporated into guidelines, ordinances, and projects	https://ffsl.utah.gov/fire/wildfire-community-preparedness/

OBJECTIVE 2.3.2: PRESERVE AND ENHANCE VIEWS OF THE NIGHT SKY AND PROTECTIONS FOR NOCTURNAL WILDLIFE.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support the adoption of a Dark Sky compliant light-pollution control ordinance.	PDS, PC, EC Metro	Immediate and ongoing	Staff time	Ordinance enacted	IDA
b. Support the adoption of a natural view shed preservation ordinance.	PDS, PC, EC Metro	Highest Priority		Ordinance enacted	Monticello's viewshed

GOAL 2.4: PRESERVE AND ENHANCE EXISTING COMMERCIAL ACTIVITIES.

OBJECTIVE 2.4.1: INCREASE SUPPORT FOR COMMERCIAL ACTIVITIES THAT ENHANCE THE QUALITY OF LIFE OF CANYON RESIDENTS AND ADHERE TO CANYON CHARACTER AND VALUES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Allow small home-based businesses as long as parking is available and deemed adequate for the type of business desired.	PC, PDS	Immediate and ongoing	Staff time	Approved project assessment	See also Chapter 4
b. Consider environmental impact, and impact on roads and traffic when evaluating proposed changes in commercial or residential zoning.	PC, PDS	Immediate and ongoing	Staff time	Approved project assessment	

CHAPTER 3: TRANSPORTATION AND MOBILITY WORK PROGRAM

GOAL 3.1: ENHANCE THE EXISTING CHARACTER, INTEGRITY, AND ENVIRONMENTAL MANAGEMENT OF THE CANYON ROADS.

OBJECTIVE 3.1.1: IMPROVE TRAFFIC AND GROWTH MANAGEMENT TO MAINTAIN THE CHARACTER AND INTEGRITY OF EMIGRATION CANYON.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Conduct continuous traffic and speed studies to provide cohesive datasets for future decision making, including consideration of road limitations.	Engineering, UPD, PDS	Immediate and ongoing	Staff time	Reports produced, presented, and made available online	Methods and Practices for Setting Speed Limits
b. Include the most up-to-date traffic and growth data available in planning staff reports regarding development proposals, especially those that modify zoning.	PDS, PC, EC Metro	Immediate and ongoing	Staff time	Decision makers access and reference reports regarding transportation planning and decision making.	N/A
c. Conduct a connectivity study for Emigration Canyon that addresses e.g. the feasibility of public transit, ride sharing, electric car infrastructure, and telecommunication improvement options, taking into consideration the needs of all, including residents, visitors, the vulnerable, and the character of the Canyon.	PDS, UTA	Encouraged	Staff time	Report(s) produced, presented, and made available regarding transportation planning and decision making.	Deschutes National Forest: Alternative Transportation Feasibility Study
d. Pursue recommended connectivity study improvements as soon as practical.	EC Metro	On the horizon	Staff time	Staff directed to pursue top priority projects.	N/A

OBJECTIVE 3.1.2: REDUCE AND/OR MINIMIZE NOISE POLLUTION THROUGHOUT EMIGRATION CANYON.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Strategize with UPD regarding opportunities to enhance noise pollution enforcement (including considerations of aircraft and drones).	UPD, Legal counsel, PDS	Immediate and ongoing	Staff time	Meetings among staff and strategy developed.	Noise Pollution Clearinghouse

b. Support improved noise pollution controls and enforcement measures (e.g. strict speed enforcement, use of EPA compliant exhaust systems on motorcycles).	UPD	Immediate and ongoing	Staff time	Increased enforcement record, reduced number of noise complaints.	N/A
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OBJECTIVE 3.1.3: INCREASE TRAILHEAD PARKING AND RELATED FACILITIES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Design projects to be shovel-ready.	ECCC, PDS	Immediate and ongoing	Volunteer and staff time	Designs ready and approved by all partners.	See also objective 2.3.1
b. Apply for trail-related grants.	ECCC, PDS	Immediate and ongoing	Volunteer and staff time	Grants applied for.	
c. Build and maintain facilities in appropriate areas, based on 2019 priorities (e.g. where trails exist or are planned and in keeping with the current version of the Emigration Canyon Trails Master Plan) as funding becomes available.	ECCC	High Priority	Volunteer time, grant funding matches (\$).	Length of trails built/maintained, Number of parking and other support facilities built.	Salt Lake County Parks and Recreation, 2007; Emigration Canyon Community Council, 2019

GOAL 3.2: PROVIDE A SAFE, EFFICIENT TRANSPORTATION NETWORK FOR ALL USERS.

OBJECTIVE 3.2.1: IMPROVE SAFETY OF EMIGRATION CANYON'S ROADWAYS FOR ALL USERS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Where practical, build and maintain all public roads to State and County standards.	Engineering, UPD, PDS	Immediate and ongoing	Staff time	Regular inspection reports.	Engineering
b. Build and maintain all private roads per the plans approved and permitted by MSD/Engineering.	Developer, property owners	Immediate and ongoing	Staff time	Regular inspection reports.	
c. Ensure the safety of all road users through the appropriate application of signage, striping, traffic calming and enforcement.	Engineering, UPD, PDS	Immediate and ongoing	Staff time	Regular inspection reports.	

d. Manage traffic speeds along the entire length of Emigration Canyon Road through the appropriate application of signage, striping, traffic calming, and enforcement.	UPD, Engineering, PDS	Immediate and ongoing	Staff time	Reports produced, presented, and available re: transportation planning and decision making.	Lochner, 2016
e. Implement projects in a priority order (identified in Lochner) to achieve the highest benefit/cost first, while recognizing there are limited funds available to achieve road improvements.	Engineering, PDS, EC Metro	Immediate and ongoing	Staff time	Grants applied for, projects funded.	
f. Implement roadway striping and signing improvements first, followed by the construction projects as prioritized in the Lochner 2016 Emigration Canyon Transportation Study, unless opportunities or new data suggest otherwise.	Engineering, PDS, EC Metro	Immediate and ongoing	Staff time	Regular reports.	

OBJECTIVE 3.2.2: IMPROVE REGIONAL, CITY-WIDE, AND NEIGHBORHOOD TRANSPORTATION MANAGEMENT TO CREATE AN EFFICIENT TRAFFIC SYSTEM AND REDUCE TRAFFIC IMPACTS ON AIR QUALITY, ESPECIALLY DURING HIGH-USE TIMES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Organize a collaborative transportation and mobility working group, at EC Metro's discretion, to ensure that all future work adopts best practice design standards, traffic calming measures, recognizes Main Canyon Road's vital role as the only alternative route for sections of I-80 within Lower Parley's Canyon, and technologies to reduce congestion and delays and ensure the safety of Emigration Canyon residents and other users.	UPD, Legal counsel, PDS	Immediate and ongoing	Staff time	Meetings among staff and strategy developed.	BBC: The Technology that Could End Traffic Jams

CHAPTER 4: ECONOMIC DEVELOPMENT WORK PROGRAM

GOAL 4.1: FOSTER RESPONSIBLE, EQUITABLE, AND SUSTAINABLE ECONOMIC DEVELOPMENT IN KEEPING WITH THE CHARACTER AND VALUES OF EMIGRATION CANYON.

OBJECTIVE 4.1.1: ENHANCE A COMMUNITY ENVIRONMENT THAT EMBRACES SUSTAINABLE ECONOMIC GROWTH, WHILE PRESERVING THE COMMUNITY'S DEDICATION TO THE ENVIRONMENT, RECREATIONAL AMENITIES AND HISTORIC IDENTITY.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Apply for digital infrastructure improvement funding.	PDS, EC Metro	Immediate	Staff time	Grant applications submitted	WFRC, NSF
b. Develop a working group, at EC Metro's discretion, to establish economic development criteria and support options that would be appropriate for the unique character and environment of Emigration Canyon.	PDS, ECCC	Encouraged	Staff time	Working group established	N/A
c. Support sustainable economic growth opportunities that would strengthen the community, while still preserving the community's dedication to the environment, recreational amenities and historic identity.	PC, ECCC	On the horizon	Staff time	Information sharing increased	WFRC
d. Establish a framework of community arts & culture events that can bring diverse commerce to Emigration Canyon Metro Township while strengthening a sense of community and connection among canyon residents.	ECCC, PDS	Encouraged	Staff time	Framework established	Small Business Saturday
e. Develop a plan for digital infrastructure to provide faster and more reliable internet speeds and access for businesses and residents.	PDS	High Priority	Staff, consultant time	Plan produced	See Table 6.5, Southwest Georgia Digital Economy Plan
f. Upgrade digital infrastructure access.	PDS, EC Metro	Strongly Encouraged and ongoing	Staff time, leverage funds	Access improvements	WFRC, NSF

CHAPTER 5: ENVIRONMENT WORK PROGRAM

GOAL 5.1: PROTECT AND ENHANCE CLEAN, CLEAR AIR QUALITY.

OBJECTIVE 5.1.1: IMPROVE AIR QUALITY IN AND AROUND EMIGRATION CANYON.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support policies and strategies that reduce driving miles.	PC, EC Metro	Immediate and ongoing	Staff time	Policies and strategies adopted and employed	Sustainable Development Code - Chapter 4: Mobility & Transportation
b. Support policies and strategies that enhance ride sharing/public transit in Emigration Canyon.	PC, EC Metro	Immediate and ongoing	Staff time	Policies and strategies adopted and employed	UCAIR
c. Educate local community members about air quality issues.	EC Metro, ECCC, PDS	Encouraged	Staff time	Newsletter articles, other education materials developed	

GOAL 5.2: PRESERVE AND ENHANCE THE HEALTH OF THE WATERSHED TO ENSURE THAT IT HAS ADEQUATE QUALITY AND CAPACITY TO FULFILL THE NEEDS OF ALL THOSE WHO DEPEND UPON IT FOR LIFE AND WELL-BEING, BOTH HUMAN AND NON-HUMAN.

OBJECTIVE 5.2.1: IMPROVE WATER QUALITY AND MAINTAIN OR IMPROVE WATER QUANTITY IN THE UPPER EMIGRATION CREEK SUBWATERSHED.

Actions	Lead(s)	Timeline	Cost	Metric	Resources
a. Complete a watershed plan to address surface water contamination and other issues that could threaten the health of the watershed and effect land use options.	EC Metro, PDS	Immediate and ongoing	Grants and grant match (\$)	Completed plan	EPA; Hubbard-Rice, 2015; See also objective 2.1.2d
b. Complete a groundwater study to help guide future land use decision making.	EC Metro, PDS	Highest priority or as funding is available	Grants and grant match (\$)	Completed study	
c. Identify funding sources to complete watershed plan and/or groundwater study recommendations where practical.	EC Metro, PDS	High Priority	Grants and grant match (\$), Staff time	Grants submitted	
d. Implement recommendations outlined by watershed plan and/or groundwater study, including implementing updates to General Plan as needed, as resources become available.	PC, EC Metro, PDS, Engineering	Encouraged	Grants and grant match (\$), Staff time	Updates or changes to plans and codes	
e. Support the application of the precautionary principle to proposed development projects to ensure that there is adequate ground and surface water available to fulfill the needs of all those who depend upon it for life and well-being, both human and non-human.	PC, PDS	Immediate and ongoing	Staff time	Instances of precautionary principle incorporated into decision making	IUCN
f. Educate local community and visitors on watershed protection (e.g. E. coli contamination of the creek from non-point sources such as recreational users, faulty septic systems, and stormwater runoff).	EC Metro, ECCC, PDS	Encouraged	Staff time, Signage (\$)	Educational materials produced and disseminated	EPA - Tools and resources to protect watersheds

g. Encourage coordination of regulatory and voluntary watershed management efforts across scales (e.g. local, regional, state).	EC Metro, Local groups	Encouraged and ongoing	Funds for participation in regional events (\$)	Participate in collaborative cross-scale forums, establish collaborative agreements and partnerships	DEQ Watershed Management, Utah Clean Water Partners
h. Develop incentives programs to improve septic management and reduce water use (e.g. provide financial support for installation of water meters on private wells, provide education on benefits of water efficient appliances, provide support for system assessments that reveal leaks and enhance water conservation).	EC Metro, ECCC	Encouraged	Staff time, incentive funding (\$)	Programs and educational materials developed and funded	Sustainable Development Code Ch 1-2 Low-Impact Development

GOAL 5.3: PRESERVE AND ENHANCE NATURAL AREAS AND ENSURE THAT LANDSCAPES ARE FUNCTIONAL AND DIVERSE.

OBJECTIVE 5.3.1: INCREASE OPEN SPACE PRESERVATION AND ACCESS IN EMIGRATION CANYON.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Complete an open space area plan as resources become available.	PDS	On the horizon	Staff time	Completed plan	Ridges to Rivers Open Space Network
b. Identify funding sources to complete plan recommendations.	PDS	On the horizon	Grants and grant match (\$), Staff time	Grants submitted	
c. Address priority projects as recommended by plan and as resources become available.	EC Metro	On the horizon	Grants and grant match (\$), Staff time	Projects completed	

OBJECTIVE 5.3.2: INCREASE COORDINATION OF BIODIVERSITY AND INVASIVE SPECIES MANAGEMENT IN EMIGRATION CANYON.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support efforts to conduct a biodiversity assessment of Emigration Canyon.	Local partners, PDS	On the horizon	Staff time	Support provided	Red Butte Canyon
b. Support development of a management plan with key partners who operate across scales (e.g.local, regional, state).	Local partners, PDS	On the horizon	Staff time	Plan completed	
c. Support ecosystem-based management practices in line with plan.	Local partners	On the horizon	Staff time, management support materials (\$)	Management projects completed	
d. Support education of locals and visitors about the importance of biodiversity and invasive species management.	Local partners, ECCC	On the horizon	Staff time, Signage (\$)	Educational events/ opportunities supported	

OBJECTIVE 5.3.3: PRESERVE AND ENHANCE VIEWS OF THE NIGHT SKY AND PROTECTIONS FOR NOCTURNAL WILDLIFE.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support the adoption of a Dark Sky compliant light-pollution control ordinance.	PDS, PC, EC Metro	Immediate and ongoing	Staff time	Ordinance enacted	See also objective 2.3.2a
b. Support the adoption of a natural view shed preservation ordinance.	PDS, PC, EC Metro	Highest Priority	Staff time	Ordinance enacted	See also objective 2.3.2b

GOAL 5.4: FOSTER HEALTHY, BALANCED RELATIONSHIPS BETWEEN HUMANS AND NATURE.

OBJECTIVE 5.4.1: INCREASE IDENTIFICATION OF CULTURAL, HISTORICAL, GEOLOGICAL, ARCHAEOLOGICAL AND PALEONTOLOGIST RESOURCES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Complete an assessment of existing cultural resources and prioritize projects (as resources become available).	PDS, Local partners	On the horizon	Staff time	Assessment completed	Preservation Utah
b. Identify funding sources to support project implementation based on assessment priorities.	PDS, Local partners	On the horizon	Staff time	Grants submitted	
c. Implement projects as funding becomes available.	ECCC, EC Metro	On the horizon	Grant funding match (\$)	Projects completed	

OBJECTIVE 5.4.2: INCREASE EDUCATION AND OUTREACH THAT ENCOURAGES STEWARDSHIP, SUSTAINABILITY, AND OTHER BALANCED INTERACTIONS WITH THE ENVIRONMENT.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support events that encourage environmental education, stewardship, and sustainability.	ECCC, EC Metro	Encouraged	Sponsorships (\$)	Events supported	USEE
b. Develop educational and outreach resources for Emigration Canyon MT website.	ECCC, PDS	On the horizon	Staff time, resources (\$)	Resources developed	
c. Identify funding sources to support educational outreach project implementation.	PDS, ECCC	On the horizon	Staff time	Grants submitted	
d. Develop and install educational signage at appropriate locations throughout Emigration Canyon as funding becomes available.	ECCC, EC Metro	On the horizon	Grant funding match (\$)	Projects completed	

CHAPTER 6: RESILIENCE AND INFRASTRUCTURE WORK PROGRAM

GOAL 6.1: PRACTICE FISCAL RESPONSIBILITY AND SUSTAINABILITY IN ALL DECISION-MAKING.

OBJECTIVE 6.1.1: ENHANCE EMIGRATION CANYON METRO TOWNSHIP'S FISCAL CAPACITY AND ECONOMIC RESILIENCE.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Conduct a fiscal capacity and economic resilience assessment as resources become available.	EC Metro, PDS	Encouraged	Staff time	Completed assessment	Rupri, 2013
b. Consider ongoing maintenance costs as a component of all new projects.	EC Metro, PDS	Encouraged	Staff time	Projects assessed	N/A
c. Progress recommendations resulting from assessment as practical.	EC Metro, PDS	Encouraged	Staff time	Projects completed	Rupri, 2013

OBJECTIVE 6.1.2: INCREASE COLLABORATION BETWEEN UTILITY PROVIDERS AND MUNICIPAL SERVICES IN TIMING OF ROADWAY AND OTHER INFRASTRUCTURE PROJECTS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Coordinate timing of all infrastructure and utility projects as practical.	PDS, Engineering	Immediate and ongoing	Staff time	# of coordination meetings/projects	Federal Highway Administration, 2013
b. Support adoption of a “dig-once” policy.	EC Metro, PDS, Engineering	Immediate and ongoing	Staff time	# of coordinated projects	

OBJECTIVE 6.1.3: INCREASE TRANSPARENCY IN BUDGETING AND SPENDING DECISIONS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Adhere to Open and Public Meetings Act requirements.	PDS	Immediate and ongoing	Staff time	# of public meetings posted	Open and Public Meetings Act, 2018
b. Publish outreach/educational information about budget and spending in EC newsletter and/or other relevant outlets.	PDS, EC Metro	Encouraged	Staff time	# of publications/posts	Emigration Canyon Community Council News

GOAL 6.2: MAINTAIN THE INFRASTRUCTURE SYSTEM IN GOOD WORKING CONDITION AND ENSURE THAT IT MEETS THE NEEDS OF CURRENT AND FUTURE RESIDENTS AND VISITORS.

OBJECTIVE 6.2.1: IMPROVE THE SAFETY, SUSTAINABILITY, AND RESILIENCE OF GROUNDWATER RESOURCES AND ASSOCIATED INFRASTRUCTURE.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Establish a working group, at EC Metro's discretion, to address relevant groundwater safety, sustainability, and resilience issues, including considering green infrastructure options.	EC Metro, PC, PDS	Strongly Encouraged	Staff time	Working group established, guidelines and recommendation produced	See also objectives 2.1.2, 5.2.1
b. Support updating General Plan and ordinances as needed to include recommendations of working group.	PDS, PC, EC Metro	Encouraged	Staff time	Updates adopted	N/A
c. Work with Salt Lake County Public Health to geolocate all septic tanks in Emigration Canyon Metro Township and update data and monitoring systems associated with these systems.	PDS, SLCo Public Health	Highest Priority	Staff time	Septic systems geolocated, data and monitoring systems updated	WelSTROM Project

OBJECTIVE 6.2.2 MAINTAIN THE ROAD NETWORK IN A SAFE AND SERVICEABLE CONDITION.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support maintaining a regularly reviewed and prioritized road maintenance plan.	Engineering, PDS	Immediate and ongoing	Staff time	Report on road maintenance and Capital Improvement needs to EC Metro	N/A
b. Annually review roadway needs in a Capital Improvement Plan.	Engineering, PDS	Highest Priority	Staff time		

GOAL 6.3: MITIGATE THE EFFECTS OF CLIMATE CHANGE, NATURAL DISASTER RISK, AND OTHER HAZARDS.

OBJECTIVE 6.3.1: INCREASE RESPONSIBLE STEWARDSHIP OVER ENERGY AND RESOURCES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Encourage fire-wise landscaping and land use, consistent with recommendations from Utah State University and other leaders in wildfire preparation.	EC Metro, ECCC, PDS	Immediate and ongoing	Staff time	# publications and outreach	USU
b. Support land use, transportation, and housing patterns that encourage energy- efficiency and reduce vehicle miles traveled.	PC, EC Metro	Immediate and ongoing	Staff time	Project approval assessment	Wasatch Choice 2050
c. Support development and adoption of a water-wise ordinance.	PDS, EC Metro	Highest Priority	Staff time	Ordinance adopted	See also 2.1.2f
d. Develop resources/programs that support public education on sustainable resource use, wildfire risk, climate change.	PDS, EC Metro	Encouraged	Staff time	# publications and outreach	EPA – Tools and resources for sustainability

OBJECTIVE 6.3.2: REDUCE KEY HAZARD RISKS FOR EMIGRATION CANYON COMMUNITY MEMBERS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Identify sensitive lands prone to hazards and support adoption of an ordinance(s) to prohibit or restrict development in these areas.	PDS, ECCC, PC, EC Metro	Encouraged	Staff time	Lands identified, ordinance adopted	Planning for Hazards Resources
b. Work with SLCo health department to identify and address high- risk community health concerns.	EC Metro, ECCC, PDS	Encouraged	Staff time	# of meetings, recommendation ons, projects established	SLCo Health Department

GOAL 6.4: ADAPT TO CLIMATE CHANGE, NATURAL DISASTER RISK, AND OTHER HAZARDS.

OBJECTIVE 6.4.1: IMPROVE INTEGRATION OF EMERGENCY-PREPAREDNESS IN LOCAL DECISION-MAKING, COMMUNITY OUTREACH, AND PLANNING EFFORTS.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Work with partners to develop a toolkit to help households discuss and develop an emergency-preparedness plan.	UFD, UPD, PDS, ECCC	On the horizon	Staff time	Toolkit developed, outreach conducted	FEMA
b. Publish important data, programs, and plans related to resilience and hazard mitigation on municipal websites and social media pages.	EC Metro, PDS	On the horizon	Staff time	Information published, # times accessed	MSD
c. Set aside financial and material resources for use in community emergencies as practical.	EC Metro	On the horizon	Staff time	Resources allocated	N/A

OBJECTIVE 6.4.2: IMPROVE COMMUNICATION ACROSS ALL MEMBERS OF THE COMMUNITY, INCLUDING THOSE WHO MAY BE DISPROPORTIONATELY AFFECTED BY A DISASTER OR CHANGE.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support collaboration between essential service entities within Emigration Canyon.	EC Metro, PDS	Immediate and ongoing	Staff time	# collaborative meetings and projects	N/A
b. Support coordination of hazard communications across a range of platforms.	ECCC, EC Metro	High Priority	Staff time	Hazards communication methods updated	N/A
c. Develop a plan for digital infrastructure to provide faster and more reliable internet speeds and access for businesses and residents.	PC, ECCC, PDS	High Priority	Staff, consultant time	Plan produced	See also Economic Development Work Program
d. Work with partners to develop resource packets specific to needs of potentially disproportionately affected people.	PDS, ECCC, UFD, UPD	On the horizon	Staff time	Resources developed, outreach conducted	See also 6.4.1a

GOAL 6.5: ENSURE THAT ALL COMMUNITY MEMBERS ENJOY A SENSE OF BELONGING AND HIGH LEVELS OF SOCIAL CONNECTEDNESS AND TRUST.

OBJECTIVE 6.5.1: IMPROVE OPPORTUNITIES FOR POTENTIALLY DISPROPORTIONATELY AFFECTED RESIDENTS TO BECOME ENGAGED IN COMMUNITY LEADERSHIP AND SERVICE, ESPECIALLY PLANNING AND DECISION-MAKING PROCESSES.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support development of programs to help diversify community leadership (e.g. youth council)	EC Metro, PDS	On the horizon	Staff time	Programs supported	Youth Council Development Guide
b. Establish funding to support participation in service for under represented/under served groups as practical.	EC Metro, PDS	On the horizon	Staff time	Funding established	

OBJECTIVE 6.5.2: INCREASE ACCESS TO SPACES WHERE PEOPLE FROM DIVERSE BACKGROUNDS FEEL SAFE AND WELCOME TO GATHER, PLAY, ORGANIZE, AND ENGAGE WITH ONE ANOTHER.

Actions	Lead(s)	Priority	Cost	Metric	Resources
a. Support collaboration between active community organizations through partnership funding.	EC Metro, ECCC	Immediate and ongoing	Staff time, event funding (\$)	# collaborative meetings and projects	Utah Funding Directory
b. Conduct a study of viable local park/open space access interests, needs, and future requirements for existing communities and new subdivisions.	PDS	Highest Priority	Staff time	Completed study	See Land Use Work Program
c. Support community arts & culture events that can strengthen the sense of community and connection among canyon residents.	PC, ECCC	High Priority	Staff time	Support provided	See Economic Development Work Program
d. Progress local park/open space access study recommendations as resources become available.	PC, PDS	Priority	Staff time	Recommendations incorporated into guidelines, ordinances, and projects	See Land Use Work Program

e. Conduct annual reviews of Emigration Canyon policies and the impacts that they have on various communities.	PDS	Strongly Encouraged	Staff time	Review completed, report published	N/A
f. Establish a working group, at EC Metro's discretion, of local artists, educators, and residents to develop historic markers, educational signage, and wayfinding signage.	ECCC, PDS	Strongly Encouraged	Staff time	Working group established	See Land Use Work Program
g. Seek funding to support the establishment of historic markers, educational signage, and wayfinding signage.	ECCC, PDS	Encouraged	Staff time, grant match (\$)	Grants submitted	See Land Use Work Program
h. Increase opportunities for children and adults to participate in community educational events and classes as practical.	EC Metro, ECCC	Encouraged	Staff time	Opportunities developed and promoted	N/A



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