

Storey County Master Plan 2024



Resolution

[Insert resolution of planning commission and board here]

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CHAPTER 1

Introduction & Framework



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1.1 Introduction

Storey County adopted a twenty-year County Master Plan in 1994, and that version of the master plan remained in effect until the adoption of the 2016 Master Plan. The master plan is required by Nevada Revised Statutes (NRS Chapter 278.150) for the purpose of providing a comprehensive long-term general plan for the physical development of the county. This master plan presents information on existing conditions, highlights current and future issues, and recommends goals, policies, and objectives to address identified issues in the county. A master plan is made up of several functional elements, including land use; transportation; housing; population; economic development; cultural and historic resources; public services and facilities; and water and natural resources. The Storey County Planning Commission is responsible for preparing and adopting the master plan before final adoption by the Storey County Board of Commissioners. Additionally, the Planning Commission may prepare and adopt updates to the master plan before submittal to the board for adoption.

Storey County staff met with the county communities of Virginia City/Gold Hill, Mark Twain, Lockwood, and the Highlands during the summers of 2023 and 2024. At the meetings, Storey County residents expressed satisfaction with the existing master plan goals and policies, while acknowledging some goals as completed and some new goals on current topics to add. Based on these discussions, staff proceeded with updating the 2016 Master Plan rather than a complete re-write of the document, as the information in the document is still relevant. This updated version is titled the 2024 Master Plan Amendment.

As Storey County is midway through the second decade of the twenty-first century, many challenges and opportunities unique to its history will continue to be encountered. Since the county continues to evolve, it must identify and address the land use challenges of the next decade with greater sophistication. Preserving and enhancing the quality of life is a priority for the entire county.

This plan is intended to serve as a reference document which the Board and Planning Commission may use when exercising their authority to establish land use policy through the creation and approval of zoning maps and zoning ordinances. However, traditional master plan issues – those which directly affect the use of the county’s land, such as transportation and industrial growth – have changed substantially. This master plan incorporates a more comprehensive approach, one which addresses issues that go beyond zoning.

The master plan update adopts this approach by recognizing the interdependence of traditional land uses with nontraditional master plan topics such as population, public services and facilities, economic development, and natural resources. However, discussion of these nontraditional issues in this master plan is intended only as additional guidance for the Board and Planning Commission when it acts to establish land use policy.

The makeup and character of Storey County is like many maturing areas in the western United States, whose growth took place in the late nineteenth century and then again in the modern era. Buildings, facilities, and infrastructure in most of the older areas of the Comstock region date back over one hundred years. Infrastructure in these areas has well exceeded life expectancy and is in need of repair and replacement. Conversely, capital improvement projects within the industrial center located toward northeastern interior portions of the county are impressive and rival large metropolitan areas. This master plan recognizes that aggressive infrastructure development at the industrial center is vital to the county’s

economic sustainability. It is also recognized, however, that considerable effort needs to be directed toward updating utilities and facilities within existing population centers elsewhere in the county.



Figure 1.1-1: Virginia City, shown below, a community principally developed in the nineteenth century has land use, infrastructure, and other needs which contrast substantially with those of the Tahoe-Reno Industrial Center (depicted above) and other newer communities in the county. This master plan discusses unique challenges of each community and provides a framework by which those challenges should be addressed now and in the future. (Source: SJS Commercial Real Estate, 2016)



Storey County holds a strong reputation for its ability to preserve relics of the past and provide visitors an authentic historic experience. Chapter 3 – Land Use and Chapter 11 – Cultural and Historic Resources discuss efforts to preserve the past and meet challenges that are faced today. While the County has taken such measures to preserve the past, it has also embarked on endeavors to promote the county as a modern “place to conduct business,” and the county has resultantly been put on the map as a world competitor in manufacturing, distribution, technology, renewable resources, and emerging experimental industrial development.

Since adoption of the 1994 Master Plan, the County has consistently implemented many of the concepts of “smart growth.” Land use decisions handed down by the Board facilitated a strong economic base and designated residential growth to remaining infill sites. This master plan strengthens and modernizes the tools to conserve and enhance existing communities and businesses, while providing needed services to

existing areas and infrastructures. By preserving the rural areas while discouraging urban sprawl, the County can commit its fiscal resources to the improvement of its existing developed areas. The knowledge that resources will be directed toward existing communities and commercial needs should bolster county residents' confidence in the continued viability of their communities.

Storey County continues to face development pressure from neighboring Washoe and Lyon Counties, and to a lesser extent Carson City. While land use decisions continue to support the existing land use policy in Storey County, it must be noted that approximately 90 percent of the land in the county is privately owned, and the potential threat of change is perceived to come from large-scale residential developments. This type of development can have devastating effects on historic and current lands use patterns; can dissolve the unique social climate and quality of life residents currently enjoy; can destroy the historical integrity and feel of the Comstock Historic District, including Virginia City and Gold Hill; and can dissolve other values and lifestyles which residents across the county want to protect.

In addition to preserving the small-town community character of existing population centers and promoting commercial expansion in areas where appropriate, this master plan recognizes the importance of retaining the existing character of each community. Special attention is given to preserving the character of the Comstock. The setting of the Comstock Historic District and its structures serve as a landmark to our heritage and contribute an important part of what we perceive about the area's character. Any change or destruction of these features could irreversibly change the character of the district and diminish its historic integrity. County officials should ensure that any future development within the Comstock Historic District strictly conforms to adopted zoning requirements and established State Statutes, and otherwise enhances the historical area.

1.2 Master Plan Basics

1.2.1 Essential Elements of a Master Plan

A comprehensive master plan is a blueprint that provides guidance on where and how the county will grow in the next twenty years. Master plans typically consist of charts, drawings, diagrams, schedules, and reports addressing issues pertaining to growth, housing, economic development, transportation, environment, parks and recreation, aesthetics, community character, and the preservation of natural, cultural, and historic resources. The primary emphasis of this master plan is to provide short-, medium-, and long-term guidance to property owners, businesses, citizens, and policy makers on land use and other issues.

The master plan is an officially adopted guiding document that outlines Storey County's vision and goals for current and future land uses and growth patterns. It provides guidance for elected and appointed officials in making decisions regarding the immediate and long-range needs of the county. The expressed goals, objectives, and policies, in combination with the master plan land uses maps, provide guidance for decisions affecting residential and non-residential growth, the use and development of land, preservation of cultural, historical, and natural resources, and the management of public facilities and services. The master plan consists of written goals and policies, and maps which are used together when making decisions.

This master plan should be reviewed and updated periodically, at least every five years, at public hearings in order to reflect the availability of new implementation tools, changes in federal and state regulations,

changes in funding sources, the results of monitoring the effectiveness of existing policies and the impacts of past decisions, as well as to reflect changes in the County’s goals for land use planning.

1.2.2 Community-Based Planning

This 2024 Master Plan Amendment was developed through a collaborative relationship between Storey County elected and appointed officials, and the residents, business owners, homeowners associations, general improvement districts, and other entities within the county. The public was engaged throughout the entire process of the 2024 Master Plan Amendment, from conception to adoption by the Board.

Public involvement for the master plan update was achieved through public workshops, social media communication, and physical site visits and field trips. Public involvement venues included traditional settings, such as Planning Commission meetings at the Storey County Courthouse, and non-traditional settings, such as workshops and town halls held in each of the county’s communities, site visits, and bus tours.



Figure 1.2-1: The Storey County Master Plan was built from the ground-up with extensive public participation occurring over years of workshops occurring in each of the county’s five communities.

1.2.3 Statutory Requirements

NRS 278.150 through 278.170 require that the Planning Commission prepare and adopt a comprehensive, long-term general plan for the physical development of the county. The comprehensive plan is to be referred to as the “master plan.” The master plan is to be prepared so that the following elements may be adopted by the Board with recommendation by the Planning Commission as appropriate.

- Community design
- Conservation
- Economic development
- Historic properties preservation
- Land use
- Population
- Public buildings and facilities
- Public lands policies

NRS also explains how the master plan is to be adopted. The County followed and exceeded NRS requirements in the preparation and public hearing process for this master plan.

1.2.4 Master Plan and Zoning Relationship

Land use zoning districts have been defined by county ordinance and are incorporated into Title 17 of the Storey County Code. A district zoning map, created in 2012, accompanies that written code and has supported many planning decisions across the county. Several inaccuracies existed within the 1994 district zoning map, including inaccurate parcel map data and land use changes since its creation which were not reflected therein. In 2012, the County engaged in an inter-local agreement with the Douglas County GIS Department to perform GIS mapping services for the County. The entities made many needed corrections to base parcel maps that will ultimately result in corrections to layered zoning and other mapping. In 2016, the County changed its contract from Douglas County GIS to its engineer of record, DOWL (formerly known as Farr West Engineering). The zoning maps were updated into the current format in 2017. Minor updates associated with zone change/zone map amendments have occurred with Planning Commission and Board of County Commissioners review and approval.

The synergetic relationship between a master plan and a zoning ordinance should be expressly recognized. Since the master plan is a statement of direction, the zoning ordinance should only be amended in conformity with the master plan. In fact, once a master plan is officially adopted, non-conformity with the master plan is ample reason for rejecting an amendment to the zoning ordinance. In short, the zoning ordinance expresses more closely what is; the master plan expresses what should be.

CHAPTER 2

Citizen-Driven Themes & Guiding Principles



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2.1 Public Involvement

This master plan update was developed from public comments gathered in a series of open houses and workshops held by Storey County staff and the Storey County Planning Commission in communities throughout the county. Additional outreach to citizens, businesses, and stakeholders was achieved through engagement with community groups such as homeowners associations, community center boards, general improvement districts, and other groups. Ongoing consultation also took place between Storey County and federal, state, and local agencies such as the Bureau of Land Management, Nevada Division of State Lands, and other counties and jurisdictions throughout Nevada as necessary to update existing information.

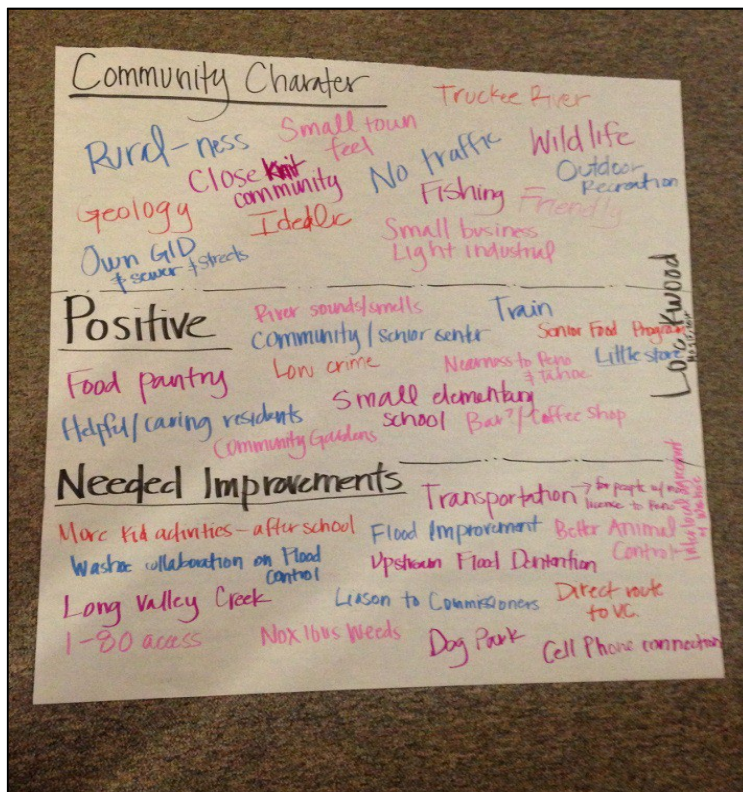


Figure 2.1-1: Public Workshop Comments. The Storey County Master Plan was built from the ground up, with extensive public participation occurring over years of workshops occurring in each of the county's five communities. The image to the left is one of many records – in this case from a public workshop in Lockwood – of topics and concerns that were brought up by citizens during the earliest stages of master plan development.

The 2016 Master Plan was the culmination of public workshops that occurred from 2009 to 2016. In 2013, over 100 citizens of Storey County attended one of several posted community workshops to identify positive areas and items that need improvement for their communities and across the county. Between 2009 and 2016, public master plan workshops were a regular item on Planning Commission agendas. The Planning Commission and public received general updates of the plan's evolution.

Key items and policy creation were discussed at the Commission meetings and other venues mentioned above. Controversial issues, where citizens' interests split, were debated at length over many Commission meetings, and in many locations including each of the county's separate communities. The resultant

policies in this master plan are a tribute to the insightful thinking of the citizens of Storey County as they logically interacted, compromised, and arrived at general consensus on direction for land use goals, policies, and objectives for the County.

In the summers of 2023 and 2024, meetings were held in the Storey County communities of Lockwood, Highlands, Mark Twain, and Virginia City/Gold Hill. The meetings examined the existing master plan language related to county-wide issues, along with identified issues for each community. Based on those meetings, County staff concluded that the residents generally found the existing master plan to be relevant, and with some updates and inclusion of newer topics, decided that an update to the 2016 Master Plan was more appropriate at this time rather than a complete re-write of the document.

Updated drafts of different chapters of the master plan were posted on the official website of the County in the fall of 2024, and County planning staff and planning commissioners received public comments from those drafts as they were continually updated. The conversations again were constructive and resulted in positive policy refinement.

2.2 Guiding Principles of a Master Plan

The goals, policies, and objectives of this master plan will guide County officials in their decisions regarding land uses, and as new development and changes take place, they will help to maintain and enhance the qualities that make Storey County a desirable and sustainable place in which to live, work, and play.

- Goals represent broad values and ideas for Storey County. They are intended to give decision-makers, citizens, and stakeholders a clear idea about the County’s intended direction.
- Policies are statements about what the County aims to achieve over the life of this master plan.
- Objectives provide guidance about more specific development, programs, and capital investments in the county. Many of the objectives are listed as detailed actions and methods for implementing the plan. Some objectives will be possible to accomplish in the near-term, while others will be ongoing during the life this master plan, or will take place later in life of this master plan.

2.3 Guiding Principles of Storey County

2.3.1 Themes and Guiding Principles

Six broad “themes” were identified as the basic principles behind both the community’s feedback and the master plan. The themes reflect the community’s vision at a broad policy level, highlighting areas where the County has opportunities to build on its strengths, and noting areas where change in policy direction is needed to improve a condition that is not consistent with the communities of Storey County. The six themes include:

1. Sustainable balance
2. Residential balance
3. Economic vitality and diversity

4. Livable communities
5. Connected county
6. Community partnerships

As a subset to each theme, a set of guiding principles are provided to describe the community's specific aspirations related to each theme. The guiding principles set the stage for the more specific goals and policies contained in the subsequent chapters of this master plan.

2.3.2 Sustainable Balance

Storey County will respect and promote the distinct character and heritage of its unique communities, and promote cohesive high-quality development as appropriate that complements the county's existing communities and fosters long-term sustainability.

Virginia City/Gold Hill is a mixed-use community defined by family neighborhoods, a commercial downtown, and sparse new and historic industrial uses. The area is rich with Comstock history, and tourism based on that history makes up its primary economic base. This community includes higher density development. The sloping topography on the side of Mount Davidson makes development in the area challenging.

The Highlands is a rural estate residential community. Parcels range from one acre to 40 acres or larger. There are no municipal water or sewer services and most of the roads are gravel and privately-owned. Open space and outdoor and equestrian activities are valued, along with the scenic rugged terrain of the area. There are no commercial or industrial uses in this area.

Mark Twain, including the Mark Twain Estates, is a rural estate residential community. Parcels within the Mark Twain Estates range from around one to five acres. The greater Mark Twain area has much larger parcels with uses ranging from grazing and forestry to mining. There are no municipal water or sewer services in this area. Roads in the residential areas are paved, while most other roads are gravel or unimproved. The update to this master plan has added the language Flowery Range to the Mark Twain land use area (Mark Twain-Flowery Range) to describe the area east of the Mark Twain Estates. This was done to differentiate the existing subdivision from currently undeveloped land and potential goals and future development that may be appropriate for the Flowery Range area but not the Mark Twain Estates subdivision.

Lockwood is a residential community adjacent to the Truckee River. This community contains mixed-uses including commercial and industrial, yet it is separated from the hustle of nearby Reno and Sparks. Long Valley Creek runs through the community and has been known to cause substantial flooding impacts. Municipal services, including sewer and water, are provided by the Canyon General Improvement District.

McCarran is home to the Tahoe-Reno Industrial Center, which encompasses much of the county's geography and influences much of the county's identity. McCarran is an intense industrial area with no residential uses. Water, sewer, paved roads, heavy rail, and an advanced water reclamation system are among the services provided at McCarran. McCarran has become a significant economic engine in northern Nevada.

The public feedback is that these general land use trends are working for the residents of Storey County. The public's strong opinion is to maintain these trends.

2.3.3 Residential Balance

The current trends of countywide development have been successful to limit conflicts between residential and non-residential uses. The citizens recognized the need for a mixture of residential, commercial, and industrial land use patterns for the success of its communities. This master plan strives to maintain a sustainable balance of residential and non-residential uses.

2.3.4 Economic Vitality and Diversity

While Storey County has made great gains over the last two decades, the citizens wish to continue the economic gains into the future. Mining did well for the county in the past; however, the citizens expect mining to be volatile in the future. Different and more stable industries are the desire for the future, and this master plan strives to promote economic diversity throughout the county.

2.3.5 Livable Communities

Rural living and limited public services are the preference residents. Citizens view the interaction with community groups and the schools as an asset. These special relationships are viewed as unique to Storey County and citizens wish to preserve them. Storey County is comprised of very unique communities. Except for in the most rural of its communities, this master plan strives to promote a wide range of residential and non-residential uses strategically organized to create livable and sustainable communities. Coordination between residents, businesses, government agencies and school districts, and community support groups in land use planning and policy is a significant part of creating livable communities.

2.3.6 Connected County

The population and economic centers of the county are separated by extreme geography, long distances, and lack of connecting infrastructure. Directly connecting each of the county's communities is oftentimes debated and is considered a controversial topic. Means by which to connect the county's communities while also preserving their existing quality and style of life may be evaluated further and will strongly involve potentially affected parties.

2.3.7 Community Partnerships

We draw upon our strengths as a community, embracing our diversity and acknowledging our common goals. Private and public interests work together successfully and recognize that a cooperative approach is necessary to create strong communities and protect the environment we share. Planning activities cross jurisdictions successfully because of the high degree of coordination between the County and its regional partners, including other local jurisdictions, and state and federal agencies and organizations. This master plan supports good resource-management practices, a process facilitated by interacting with state, federal, and tribal agencies during the development of each other's plans and policies. Building on our successes, we create strategic partnerships to implement plans that enhance the values we cherish.

2.4 Storey County Citizens Summary

The *Code of the West* was first chronicled by well-known western writer Zane Grey. The men and women who moved west in the 1800s were bound by this unwritten code of conduct.

Integrity and self-reliance guided their decisions and actions. In keeping with that spirit, this information is offered to help existing and future Storey County residents who wish to follow in the footsteps of those rugged individuals and live outside city limits.

Life in rural areas is different than life in cities. County governments typically don't offer the same level of service that city governments provide. Even though property taxes are paid to the County, the amount of tax collected does not cover the cost of city-level services provided to rural residents. Since the rural west will not change to accommodate urban lifestyle or expectations, rural residents should be prepared to adapt accordingly. This is the unique character of Storey County that the existing residents wish to maintain. This is also the lifestyle that future residents should expect.

CHAPTER 3

Land Use & Growth



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3.1 Chapter Introduction

This land use and growth chapter is the principal guiding element of the Storey County Master Plan. It describes the county and each of its unique regions and sub-regions; discusses key land use patterns and challenges for those areas; and proposes means by which land uses and patterns may continue or change. This chapter assigns land use designations across the county, each with specific goals, policies, and objectives engaging the provisions of this master plan.

The guiding principles of this master plan emerged from the public planning process, and they serve as the foundation for this master plan's vision, goals, and policies. They represent the community's commitment to a more compact, organized, and mixed-use pattern of development of the county.

This master plan provides for protection of public health, safety, and welfare of residents, property owners, and other stakeholders by providing for residential, commercial, mixed-use, industrial, natural resources, recreation, open spaces, and public uses, and by situating uses appropriately. This master plan provides for the preservation and protection of important natural and historical resources, and for adequate public services for existing and future development. Defining characteristics for each land use are provided and include appropriate mixes of uses, preferred location of uses, variety of housing and other land use types, appropriate density ranges, and other design criteria for consideration. This master plan is a tool from which elected and appointed community leaders and the community-at-large may evaluate and make decisions about the location, placement, and design of buildings and land uses and land use zoning in the county in order to achieve the guiding principles. This chapter is comprised of the following components:

- Brief description of Storey County and its communities
- Identification and description of master plan land use designations in the county
- Maps illustrating land use designations in each community in the county
- Location and description of eight distinct land use areas in the county: Comstock, Highlands, Lagomarsino, Lockwood-Mustang, McCarran, Painted Rock, Northeast, and Mark Twain-Flowers Range
- General discussion of the key issues identified for each planning area
- General land use goals, policies, and objectives addressing identified each key issue.

3.2 Land Use Categories and Designations

3.2.1 Introduction

This master plan contains 11 land use designations grouped into the broad land use master plan categories listed in Table 3.2-1 and illustrated in the Official Master Plan Maps of Storey County, retained at the Office of the Storey County Recorder. The maps are also provided in this master plan where needed to support descriptive text. The maps depict established areas for each land use designation as supported by the goals, objectives, and policies of this master plan. Regulatory land use zoning and land use approvals must conform to the master plan maps and supporting text.

Table 3.2-1 provides the land use master plan categories and land use designations and the equivalent base zoning districts for each designation. The categories and designations are explained in detail later in this section.

Table 3.2-1 Land Use Designation and Equivalent Zoning District

Land Use Designation	Equivalent Base Zoning District (Does not include Overlay Zoning Districts)
Resource	F Forestry A Agriculture NR Natural Resources REC Recreation
Historic Resource Interface	SPR Special Planning Review (special review and approval by County Board of Commissioners with Planning Commission required for many uses)
Residential	R1-5 Single-Family Residential (5,000-square-foot minimum) R1-6 Single-Family Residential (6,000-square-foot minimum) R1-8 Single-Family Residential (8,000-square-foot minimum) R1-10 Single-Family Residential (10,000-square-foot minimum) R1-15 Single-Family Residential (15,000-square-foot minimum) R1-20 Single-Family Residential (20,000-square-foot minimum) R2 Multifamily Residential (1 unit per 2,000-square-foot maximum) PUD Planned Unit Development
Rural Residential	RR (Rural Residential – 40-acre minimum) RR40VR (Rural Residential Virginia Ranches; 40-acres minimum) E Estate 1 (Estate Residential – 1- acre minimum) E Estate 2.5 (Estate Residential – 2.5- acres minimum) E Estate 5 (Estate Residential – 5- acres minimum) E Estate 10 (Estate Residential – 10- acres minimum) E Estate 20 (Estate Residential – 20- acres minimum) E1VCH (Estate Residential Virginia City Highlands; 1- acre minimum) E10HR (Estate Residential Highland Ranches; 10- acres minimum)
Commercial	NC Neighborhood Commercial OC Office Commercial GC General Commercial TC Tourism Commercial IP Industrial Professional
Mixed-Use Residential Commercial	CR Commercial Residential MUCR Mixed-Use Commercial Residential Integration of commercial, single-family, and multifamily uses including those allowed in: NC Neighborhood, C Commercial, OC Office Commercial, TC Tourism Commercial, R1 Single-Family Residential, R2 Multifamily Residential

Land Use Designation	Equivalent Base Zoning District (Does not include Overlay Zoning Districts)
Industrial	I1 Light Industrial I2 Heavy Industrial I2 TRI Industrial* I3 Nevada Uplands Industrial IS Special Industrial IC Industrial Commercial IP Industrial Professional
Industrial-Professional	IP Industrial Professional
Public Facilities	P Public REC Recreation
Transition	Zone existing at time of adoption of this master plan, but where master plan maps delineate appropriate potential owner-driven future zoning designation.
Pyramid Lake Paiute Tribe	No jurisdiction
<i>*Zoning within the Tahoe-Reno Industrial Center is regulated pursuant to the Storey County/Tahoe-Reno Industrial Center Development Agreement. Zoning in the Tahoe-Reno Industrial Center will be tailored to conform to the development agreement and may be applied exclusively to TRIC lands.</i>	

3.2.2 Resource

3.2.2.1 Forestry

The Forestry designation comprises the vast majority of the land within Storey County, including most of its federally owned lands. This designation is intended to protect areas in the county having important environmental and resource qualities from unnecessary degradation, and to provide areas of very low density (e.g., 40 acre minimum) single-family residential and other compatible uses. Uses allowable within this designation include rural residential (no more than 1 per 40 acres), mining and processing, renewable energy generation, recreation, and certain agricultural uses. Many uses require oversight and special approval by the County Board of Commissioners with action by the Planning Commission.

3.2.2.2 Agriculture

There are several types of irrigated agricultural land within Storey County. Much of the agricultural land is being irrigated with surface water from the Truckee River under the provisions of the Ore Ditch Decree and the Truckee River Operating Agreement (TROA). This category represents the majority of the irrigated agricultural lands in Storey County. The intent of the agricultural land designation is to recognize, protect, and promote various types farming and agricultural uses where they have historically existed. The minimum parcel size should be no less than ten acres, except for lands no less than three acres existing at the time of adoption of this master plan.

3.2.2.3 Natural Resources

The Natural Resources designation is intended to conserve and enhance the natural and scenic resources, prehistoric archeological and cultural sites, primitive areas, watersheds and riparian areas,

common open space, and flood-prone areas from unreasonable impairment. Areas in the county considered to be highly sensitive to human development include riparian areas along the Truckee River and its tributaries; prominent mountain peaks, outcroppings, and ridgelines; the Lagomarsino Petroglyphs Site; and other significant natural and prehistoric archeological features. Open space areas are also included as a key component of planned unit developments.

3.2.2.4 Recreation

The Recreation designation provides for private and public recreational-oriented uses and facilities, including golf courses and driving ranges, bowling alleys, ballfields, and fitness and health centers. It is anticipated that such facilities will require municipal services.

3.2.3 Historic Resource Interface

The Historic Resource Interface designation is intended to provide protection to current mining and milling and the historical remnants within American Flat, Gold Hill, and Virginia City. It provides mechanisms by which remnants of historical mining and milling are preserved. It provides for an environment that remains suitable for current and future mining and milling practices when findings of fact show no substantial impact to surrounding uses and the community. Preserving remnants of historical mining and milling extends to permanent historic structures, cemeteries, mine dumps, other artifacts existing at or predating the year 1942, and remaining cultural landscapes that are identified in the county master plan as needing special attention when land uses are proposed. This designation should only be used within the Comstock planning area.

3.2.4 Residential

The Residential designation is for single-family and multifamily residential development. Single-family home lots typically range from 5,000- to 20,000 square feet, and the minimum square footage per lot is assigned by the suffix of the respective zone (e.g., R1-5 for 5,000 square-foot minimum). Single-family detached homes and single-family attached homes including townhouses, rowhouses, and twin homes are typical uses found in this designation.

Multifamily residential uses provide affordable housing opportunities for area working families and should be considered where they are compatible with surrounding uses, as well as a key component of mixed-use residential areas. Zoning for multifamily uses should be performance-based and contain design and use standards that create complementary interface between zoning and surrounding uses.

Planned unit developments (PUD) are also part of the Residential designation. These developments include a variety of home types and densities and may include neighborhood commercial, if deemed appropriate for the overall size of the residential development.

3.2.5 Rural Residential

The Rural Residential designation is very rural in character and is intended to provide for low-density residential use. This designation provides for one single-family residence per parcel, and it requires larger lot size than those found in Residential. Examples of Rural Residential areas in the county

include the Virginia City Highlands, Highland Ranches, Mark Twain Estates, Virginia Ranches, and Sunny Hills Ranchos. Lot size for this classification is one acre or greater. These areas should retain their rural or remote character and facilitate a safe and predictable environment for rural lifestyles including the keeping and use of horses and other large domestic animals. Rural Residential uses are allowed in areas designated as Resource.

3.2.6 Commercial

The Commercial designation includes a wide range of activities as well as mixed-use development to accommodate both residential and non-residential development. Retail, office, tourism, and service uses are included in this designation. Commercial uses include both neighborhood and general commercial uses as described for each master plan area. A mixed-use commercial and residential zone has been established and should be maintained in the county code to assist in retention of historic structures and downtown areas, as well as to provide flexibility for large, planned commercial developments.

3.2.7 Mixed-Use Commercial-Residential

The Mixed-Use Commercial-Residential designation includes a wide range of residential and non-residential uses strategically organized within a single community. This designation is intended to create an inclusive “downtown” with neo-traditional community design type where single-family and multifamily uses are integrated with commercial businesses, culture and entertainment amenities, and uses related to tourism. This designation may also be used for infill projects as a rehabilitation tool for selective properties in distressed areas, and it may be situated as a transition zone between multifamily development and other commercial districts.

Multi-modal transportation, including public transit and rail, independently and collectively support the mixed-use community. In general, the mixed-use designation provides for centers and uses of regional importance and for an integrated, safe, and attractive environment for residents, businesses, and visitors. Mixed-use communities are strategically located near facilities providing water, sewer, schools, law enforcement, fire protection, and other public services and these communities are generally directly connected to immediate surrounding uses.

Transition between mixed-use areas and adjacent single-family neighborhoods should be provided by stepping down the height and mass of mixed-residential buildings at the shared lot line. Where space exists, a transition may also be accomplished by incorporating lower intensity uses and housing types along a shared street frontage. This practice may be limited in Virginia City and Gold Hill in order to maintain historic patterns.

This designation provides for the potential future transition from zoning and uses existing at the time of this master plan adoption to use categories delineated on the master plan map. The existing uses are considered legally created non-conforming and may remain in use. However, planning staff and County leaders should consider applications for zone changes to zones shown on the master plan map and which better conform to this master plan. Figure 3.2-1 depicts the built environment of a mixed-use residential-commercial environment. The image portrays a “complete-street” community pattern where residential and non-residential uses are combined in a cohesive and complementary manner.



Source: American Planning Association "Great Places" 2015

Figure 3.2-1: Depiction of a Built Living Environment of Mixed-Use Residential-Commercial Environment

3.2.8 Industrial

3.2.8.1 Light Industrial

The Light Industrial designation provides for limited indoor warehousing and distribution, and indoor manufacturing and assembly involving production processes using already manufactured components to assemble or package products. The designation does not include heavy manufacturing and uses involving primary commodities or raw material. Light Industrial zoning ordinances should be located away from residential areas, except in such cases where buffering and other mitigating factors are established by development ordinances or policies, or where the conditions of a tentative map or planned unit development provide compatibility. Zoning ordinances should establish an allowable percentage of parcel area that may be used for commercial uses.

3.2.8.2 Heavy Industrial

The Heavy Industrial designation provides for light and heavy manufacturing and uses involving primary commodities or raw materials. By nature of the intensity of these uses, this designation should be located away from residential areas. Heavy Industrial zoning ordinances should allow for all light industrial uses and provide special Board and Planning Commission review for uses found in potential

conflict with the heavy industrial zone. The ordinances should also establish an allowable percentage of parcel area for commercial uses.

3.2.8.3 Special Industrial

The Special Industrial designation provides for high-intensity and highly volatile industrial and manufacturing uses that require extended separation from other less intensive uses. These uses may include manufacturing, testing, use, or storage of weapons, explosives, and chemicals. These uses are necessary and appropriate for the planned development of the county. They must also be protected from encroachment of incompatible uses through proper land use controls and buffering. This designation should not be combined with any other designation (e.g., mixed-use), with exception of parcel(s) in the county already having such conditions under court decree (see Lagomarsino Area Plan).

3.2.8.4 Industrial Commercial

The Industrial Commercial designation provides for heavy commercial and light industrial mixed-use (non-residential) environments situated near principal traffic arterials, such as the Interstate 80 and USA Parkway corridors, and industrial development where allowed uses are compatible. This designation is not intended for residential areas or general neighborhood commercial areas such as Gold Hill, Virginia City, Lockwood, or other such residential communities where C Commercial, CR Commercial Residential, or other zoning may be more appropriate. Industrial Commercial zoning may be considered in Heavy Industrial designated areas when the location and configuration of the zoning conforms to the provisions of this master plan.

3.2.8.5 Industrial (Tahoe-Reno Industrial Center)

This Industrial designation provides for light industrial, heavy industrial, commercial, and industrial commercial uses and zones pursuant to the development agreement between Storey County and the Tahoe-Reno Industrial Center, LLC. This designation may only be applied to land within jurisdictional boundaries of the Tahoe-Reno Industrial Center and the development agreement.

3.2.8.6 Industrial (Nevada Uplands)

The Industrial (Nevada Uplands) designation provides for heavy industrial and special industrial uses pursuant to a settlement agreement in the Nevada Supreme Court between Storey County and Nevada Uplands, LLC (included as Appendix A). This zoning designation may only be applied to land within the jurisdictional boundaries of the settlement agreement existing at the time of adoption of this master plan.

3.2.8.7 Industrial-Professional

The Industrial-Professional designation provides for limited and very light indoor warehousing, distribution, and manufacturing involving production processes using already manufactured components to assemble or package products. The designation does not include heavy manufacturing or uses involving primary commodities or raw material. Zoning should be performance-based and contain design and use standards that create a complementary interface between zoning and abutting residential uses. The standards should lessen impacts between the abutting uses through:

- Distance and buffering
- Landscaping, screening, noise, and lighting standards
- Vehicle access, egress, parking, and on-site circulation
- Property management through owners' associations, covenants, conditions, and restrictions (CC&Rs), etc.
- Placement of buildings and structures in a manner to reduce direct visual impacts to area residences, and cause blending with the surrounding natural environment, including backdrop mountain vistas.

3.2.9 Public Facilities

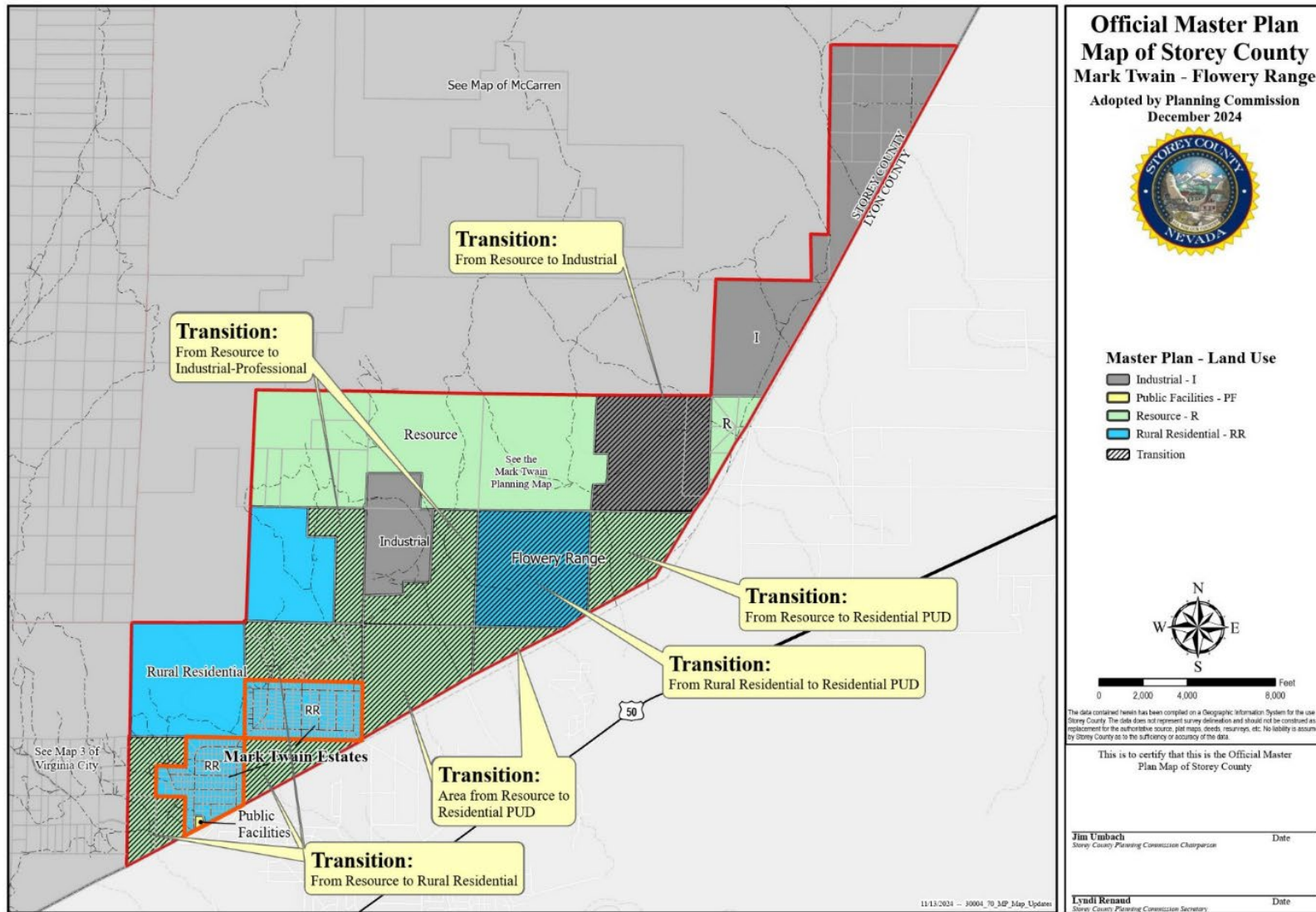
The Public Facilities designation includes public and semi-public uses such as government offices and facilities, municipal utilities, parks, schools, transportation facilities, fire stations, law enforcement facilities, and similar public facilities. Non-profit churches, community facilities, and cemeteries and other semi-public facilities are included in this designation. Public facilities should be considered as a necessary component of all areas in the county when the specific uses are found to be compatible with surrounding uses.

3.2.10 Tribal Lands

Pyramid Lake Paiute Tribal Trust Lands are in the northeastern portion of Storey County at Wadsworth. Storey County has no development authority over these lands. However, County officials should communicate and coordinate as much as possible with the tribe on proposed lands uses that could affect tribal lands in Storey County.

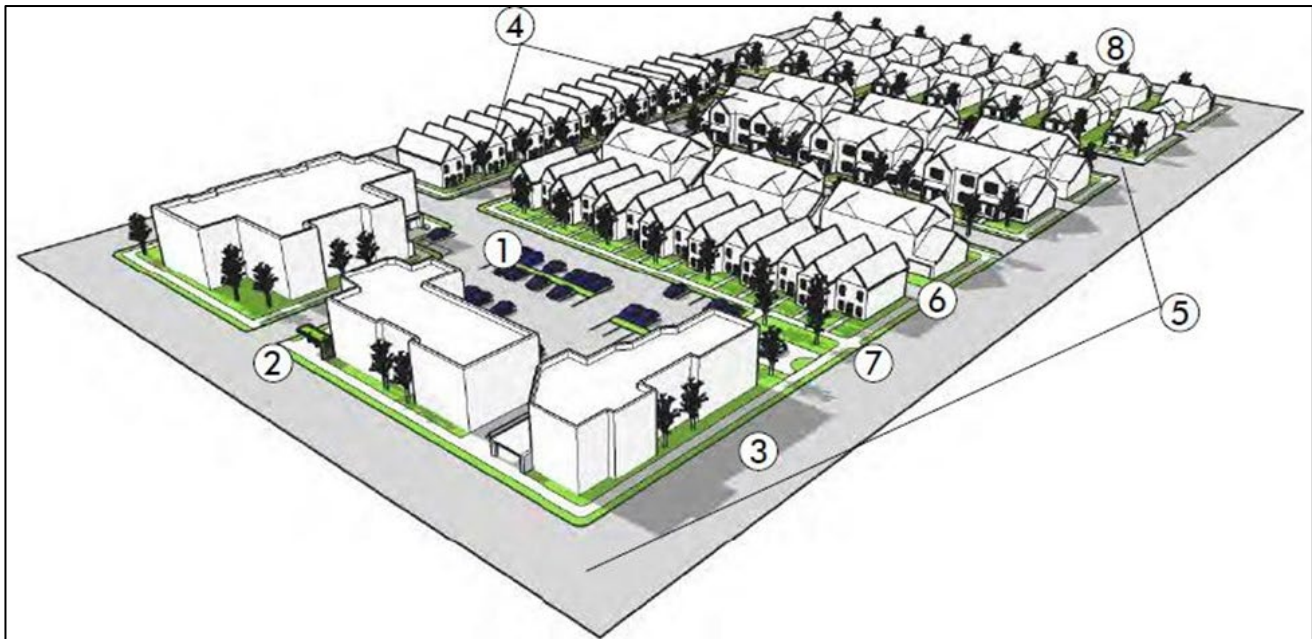
3.2.11 Transition Areas

The Transition Areas designation provides for zones and uses already existing at the time of this master plan; however, the designation recognizes conflicts may exist with adjacent uses, or other zones may be appropriate in addition to what is provided for in the master plan maps. Accordingly, the designation provides for property-owner-driven changes to more compatible zoning without amending this master plan. The recommended zoning is delineated in each transition area on the master plan land use map. Figure 3.2-2 depicts an excerpt from the master plan land use map regarding the Mark Twain-Flowery Range Planning Area, which provides an example of transition areas. A sketch showing an example of a land use transition from Sparks County is included as Figure 3.2-3.



Source: Storey County Planning Department [2024]

Figure 3.2-2: Excerpt from Master Plan Map Depicting an Area within Transition Designation (Mark Twain-Flowery Range Area Plan)



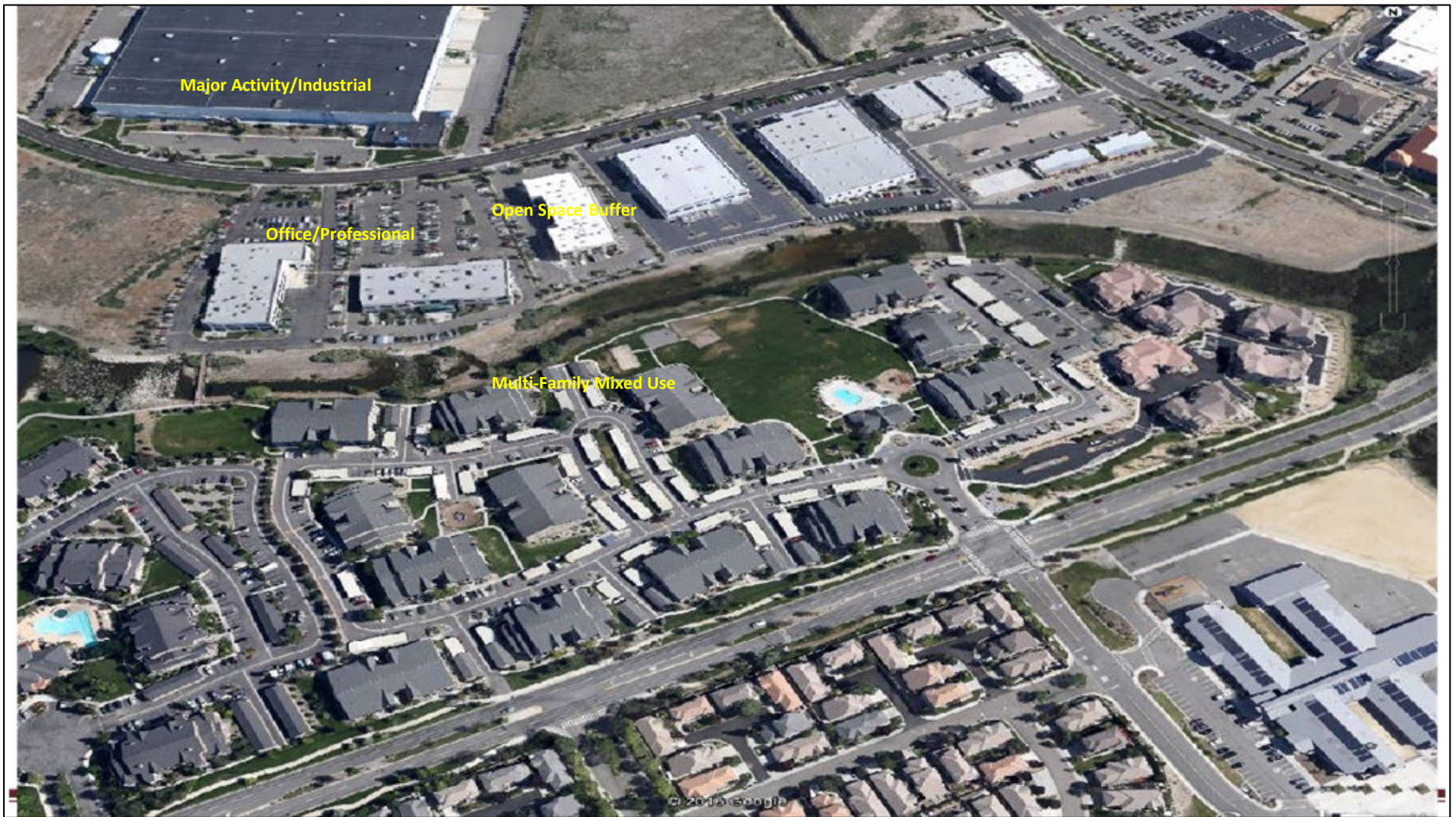
Source: City of Sparks, Transit Oriented Development Corridor Area Plan, 2002

Figure 3.2-3: Desired Transitioning Between Major Activity Centers and Single-Family Residential Uses

Explanation for Figure 3.2-3 numbered locations:

- (1) Parking located behind buildings and away from street frontage
- (2) Direct pedestrian connections to transit stop
- (3) Retail and other active uses clustered along primary street frontage
- (4) Multifamily mixed housing
- (5) Uses within activity centers organized around a pattern of walkable blocks
- (6) Alley access to residential garages
- (7) Direct pedestrian connection to activity center and neighborhood from primary street frontage
- (8) Medium density residential provides transition to lower density single-family neighborhood.

Figure 3.2-4 is an image showing the transitioning between use intensities in the Reno area. Transitioning from light to heavy intensity and density uses lessens conflict between different uses and contributes to cohesive communities. Figure 3.2-5 depicts the Storey County Master Plan (at the time of adoption of this master plan).



Source: Google Earth base aerial 2024

Figure 3.2-4: Damonte Ranch, Reno Area – Illustrating Transitioning Occurring in the Area

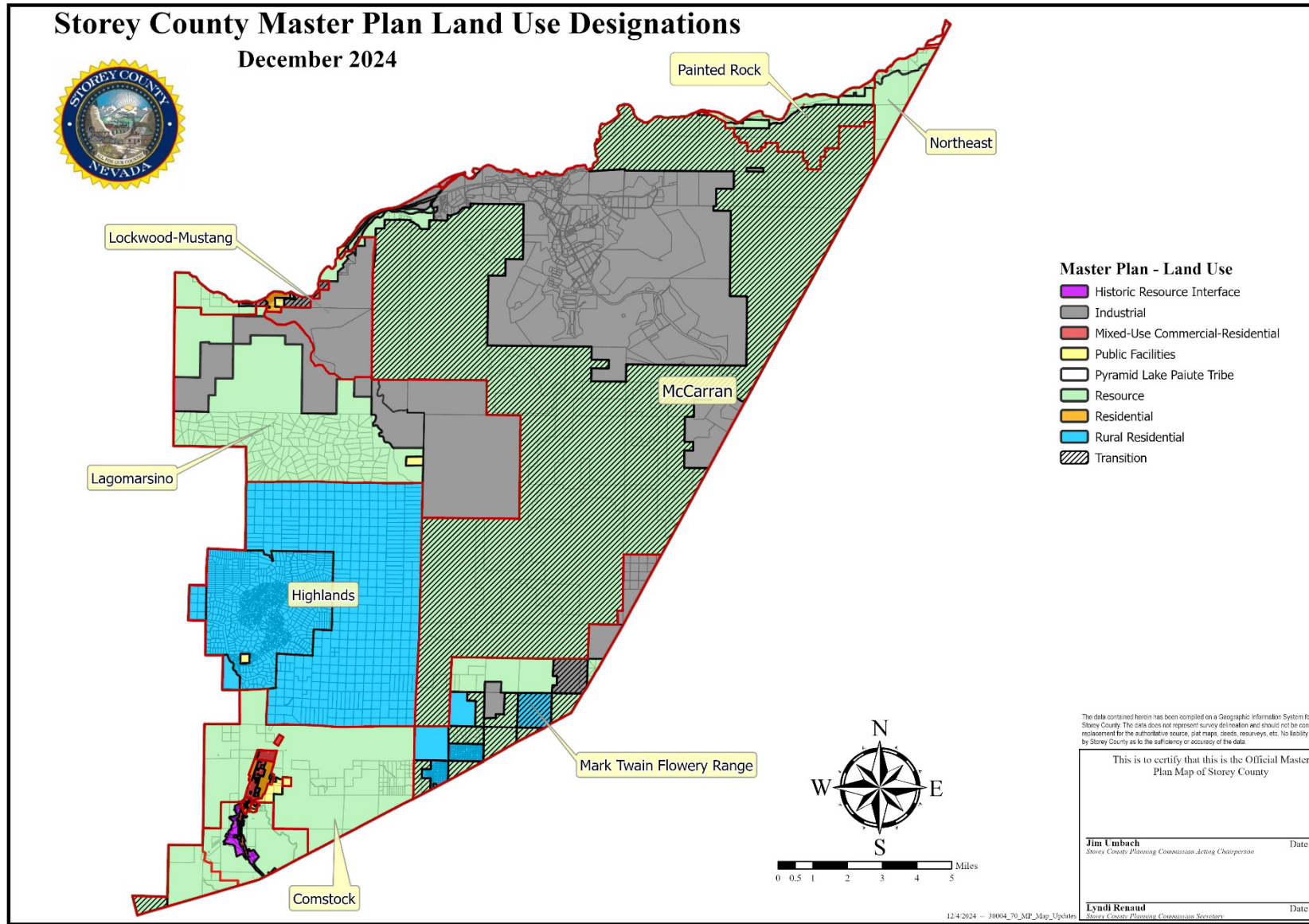


Figure 3.2-5: Storey County Master Plan Map 2024

3.3 Countywide Plan



County Overview

Storey County is in northwestern Nevada and is home to approximately 4,095 residents (U.S. Census Bureau estimate for 2022). A majority of its residents live within five communities, including Virginia City, Gold Hill, Highlands, Lockwood, and Mark Twain. The county is considered rural, but it also includes areas designated for heavy and high-tech industry.

3.3.1 Introduction

This section describes the general location, land use patterns, and key land use issues in Storey County. This master plan addresses the county by unique planning areas, each with specific land use trends, goals, policies, and objectives. Those elements are discussed later in this chapter.

The information presented in this chapter was partially derived from community workshops that occurred between 2009 and 2015, public surveys, and other data-gathering efforts, the prior 1994 Storey County Master Plan, and other planning documents. Similar public engagement occurred during the 2024 update of the master plan.

Goals, policies, and objectives follow the countywide and community summary statements. The goals, policies, and objectives are the most essential element of the master plan since they establish direction for the County to follow in carrying out the plan and making land use decisions.

3.3.2 Location and General Description

Storey County is in northwestern Nevada, approximately 40 miles from the California-Nevada state line. Storey County's western boundary roughly conforms to the western crest of the Virginia Range.

The county is bordered on the west and the north by Washoe County and on the east and south by Lyon County. The county is bordered on the north by the middle of the Truckee River for about 25 miles and on the east/southeast by the Flowery Range; Carson City abuts Storey County at its southwest corner near Mount McClellan. With 264 square miles of total land area, Storey County accounts for less than one-quarter of one percent of Nevada's total land area, making Storey County the second smallest county in the state. The foremost geographic feature of Storey County is its mountainous topography.

Storey County is classified by the U.S. Census Bureau as rural, with an approximate population of 4,095 as of the 2022 Census Bureau estimate. The Nevada Department of Taxation estimates a population density of approximately 15 people per square mile (2024). The county seat is Virginia City, in the southern part of the county on the eastern slope of Mount Davidson. Most residential development is concentrated in five communities: Virginia City, Gold Hill, Highlands, Lockwood, and Mark Twain-Flowery Range. Several residents live in outlying areas such as Painted Rock. Most commercial activity is concentrated in Virginia City and McCarran, with lesser activity occurring in Lockwood and Gold Hill. Industrial activity is centered around the Tahoe-Reno Industrial Center located within the McCarran Planning Area.

3.3.3 Key Issues

Encroachment of Urban Sprawl

Urban and suburban expansion of abutting Reno, Sparks, Dayton, and Fernley is approaching each side of the county's borders. These conditions will make it increasingly important and challenging for Storey County leaders to firmly conform to the principles of this master plan.

Water Quality and Quantity

Nearly every community in the county is faced with challenges related to water quality and supply. As the county grows in population and economic activity, it will become increasingly important to conserve existing resources, plan for improved water uses, and obtain necessary water for existing and anticipated growth.

Mining

Mining is a significant part of the county's history. Though to a lesser degree than in the past, mining continues to be a part of the county's economy. If not managed properly, mining (particularly surface mining) can have devastating impacts on existing and future residences, businesses, and the local economy. If the potential adverse impacts of mining are appropriately mitigated through local control, as well as through collaboration with state and federal officials, community stakeholders, and residents, mining can be a positive element of the county and the affected communities.

Community Fragmentation

Storey County's residential communities are separated by long distances and extreme mountainous geography. The conditions create fragmented communities and make accessibility to the county seat, Virginia City, difficult. County officials should consider potential future routes to better connect communities across the county. Active engagement with the communities potentially impacted by such routes should accompany the goals, policies, and objectives in this master plan.

Federal Lands

Federally owned land comprises approximately nine percent of the land within Storey County. The County may be precluded from imposing certain regulations or allowing entitlements on federal lands, and the guiding principles of this master plan and that of the U.S. Bureau of Land Management may substantially differ. It is imperative that County officials maintain consistent active engagement with the Bureau of Land Management and other federal land management agencies – such as through cooperating agency partnerships – during consideration of land use planning and projects on federal lands in the county.

County Zip Codes

In 2018, County staff and a federal lobbyist working with federal delegates successfully secured a unique zip code for McCarran and the Tahoe-Reno Industrial Center. The zip code was previously 89434 (Sparks), and became 89437 (McCarran, Storey County). This unique zip code ensures that sales tax revenues generated at TRI-Center through regular and e-commerce, as well as building construction, were appropriately reported by the Nevada Department of Taxation as coming from Storey County and allocated to the County rather than going to Sparks, Washoe County. The unique zip code also has the additional benefit of potentially lowering insurance rates for companies located in Storey County.

County staff is working to request zip code amendments for other parts of the county, particularly those which are currently affiliated with Reno, Sparks, and Washoe County. Amending zip codes to be unique to Storey County will ensure that residents are charged proper sales tax rates when making

online purchases (i.e., Storey County 7.6% versus Washoe County 8.265%), clarify with DMV officials the applicable smog requirements for Storey County, and ensure that home and auto insurance rates are based on residence in Storey County, not Washoe County.

The Virginia City Highlands, Highland Ranches, and Virginia Ranches (the Highlands) are proposed to be merged with zip code 89440 (Virginia City/Gold Hill). In the future, this may facilitate post office services to the Highlands out of Virginia City, if requested by any resident. With a growing customer base, potential expansion to the Virginia City Post Office facility will need to be discussed. This zip code amendment, regardless of post office service, will not cause the Highlands to lose mail delivery services to the Cartwright Road mailboxes.

The County proposes that Lockwood, Mustang, Painted Rock, and other areas of the county be merged with 89437 McCarran, Storey County. Mail may continue to be delivered from the Sparks/Vista USPS mail distribution facility. The County may request that a post office be constructed in Lockwood or another community along the Truckee River corridor, and the presence of substantial population in this area may be a qualifier for that to occur.

The Mark Twain-Flowery Range Area currently shares the 89403 zip code with Dayton in Lyon County. Amending this zip code does not appear to cause significant benefits or impacts to the Mark Twain-Flowery Range Area. Building a post office in Mark Twain-Flowery Range Area is not currently feasible due to its small population. It appears that the residents of this area may be benefiting from being associated with Lyon County's lower tax rates. County staff recommends, however, that future potential zip code changes in the Mark Twain-Flowery Range Area remain forefront in conversations with federal delegates as this community continues to grow in population and commercial development.

3.4 Area Plans

3.4.1 Introduction

Area Plans contain detailed information about each region and community in the county. The purpose of each plan is to provide direction for development that maintains and enhances the existing distinctive character of each area. This section addresses the county by the eight planning areas listed in Table 3.4-1. Land use issues, as well as goals, objectives, and policies for each, are discussed in the following section. Figure 3.4-1 depicts the Storey County Planning Areas.

Table 3.4-1: Storey County Planning Areas and Percentage of County Area

Planning Area	Acres (+/-)	Approximate Percentage of County
Comstock	15,915	10
Highlands	25,009	15
Mark Twain-Flowery Range	8,482	5
McCarran	85,573	50
Lockwood-Mustang	5,764	5
Lagomarsino	23,523	10
Painted Rock/Northeast	4,942	5

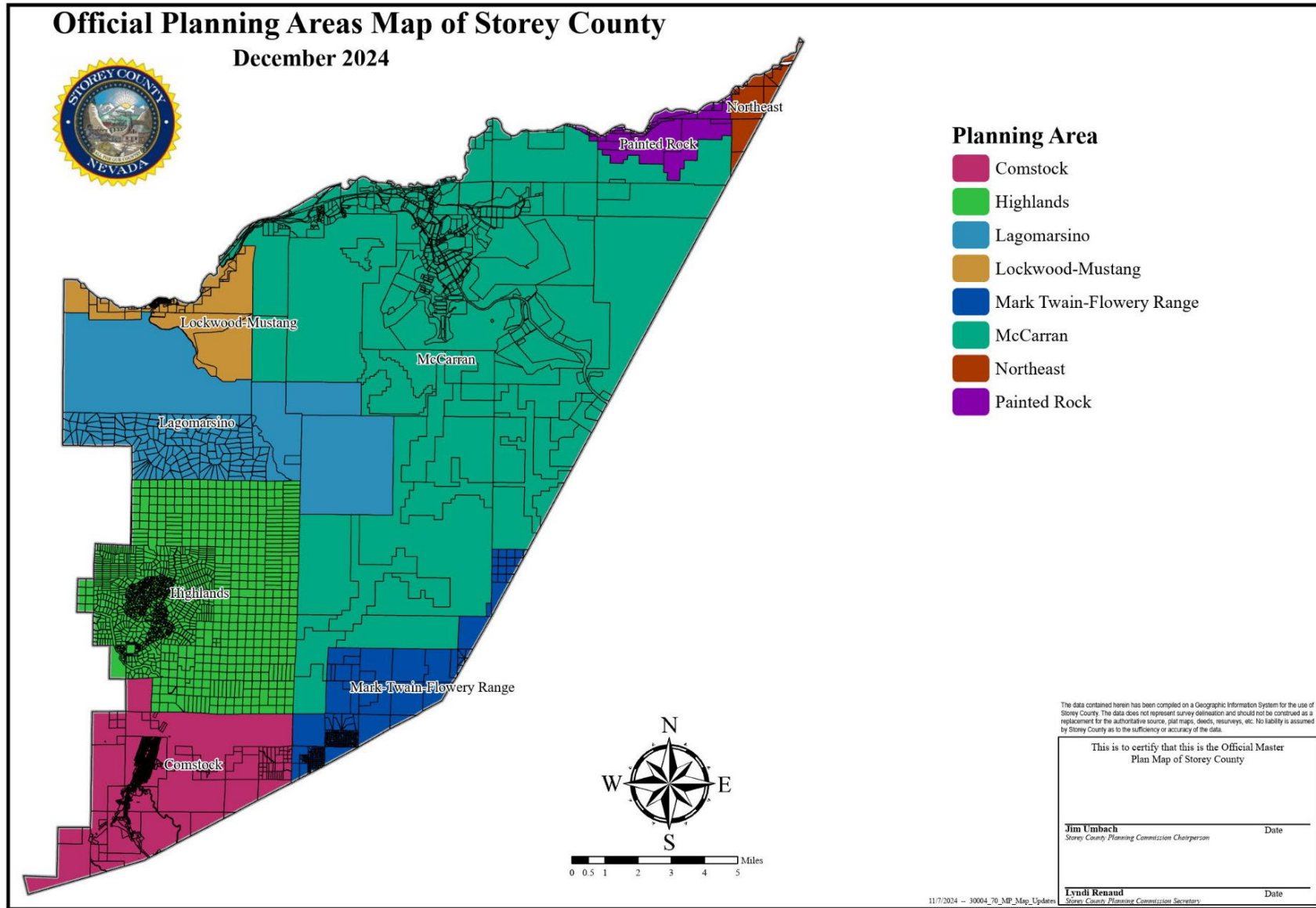
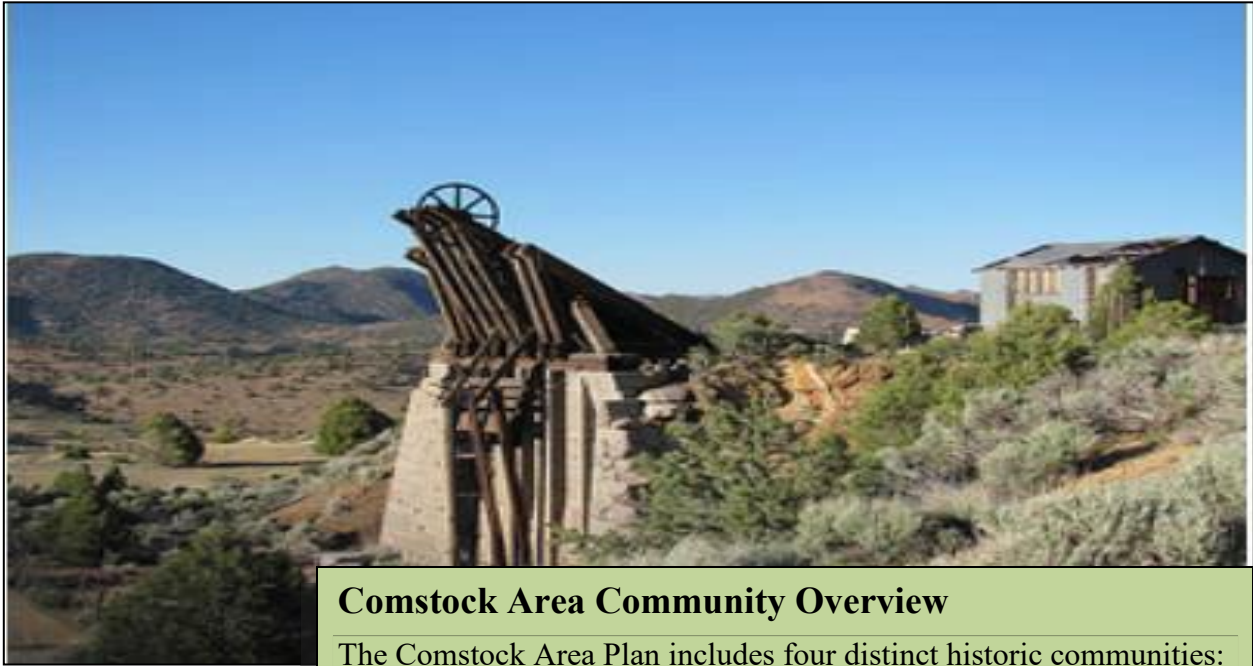


Figure 3.4-1: Storey County Master Plan Planning Areas

3.4.2 Comstock Area Plan



Comstock Area Community Overview

The Comstock Area Plan includes four distinct historic communities: Virginia City, the Divide, Gold Hill, and American Flat, which are in the southern portion of Storey County. While situated in close proximity, these communities are unique, ranging from the high-density mixed-use environment of Virginia City to the sparsely populated rural area of American Flat. Each community maintains its nineteenth century character, and considerable measures are employed to maintain the authentic historical character while also promoting business, tourism, and living.

3.4.2.1 Introduction

For the purpose of this plan, the Comstock area is divided into four sub-regions:

- Virginia City
- The Divide
- Gold Hill
- American Flat

Each region is unique in its past and present land use patterns. Community leaders should consider the interrelationship between each community and the overall historical character of the Comstock area when considering land uses in each sub-region.

Virginia City

Location and General Description

Virginia City is on the eastern slope of Mount Davidson in the southwest portion of the county (Figure 3.4-2). The origin of Virginia City is directly attributed to the discovery of the Comstock Lode and the mining activities that took place in the late nineteenth century. Today it remains a residential community and major commercial tourist attraction, and it once had several active mining operations.

Virginia City is within the Virginia City National Historic Landmark. The entire town and its surroundings are rich in history. With more than half of its structures being of significant historic value, and with minimal development in the surrounding environment, the town today remains a place of authentic historical character.

Once home to nearly 40,000 residents, Virginia City currently has a population of approximately 918 people (U.S. Census Bureau 2022). All residential structures are custom-built meeting Comstock Historic District Commission architectural requirements, and for the most part they are built on existing platted parcels. There are no planned unit developments in Virginia City. The town includes approximately 160 businesses including home enterprises and non-profits, mostly of tourism-oriented enterprises including boutique shops, eateries, saloons, museums, and boarding accommodations. Virginia City, the county's most densely populated community, also serves as the County's seat.

The community is built upon steep and irregular topography, which in many areas exceeds 25 percent slope. It is laid out in a platted grid pattern with little conformance to the local topography on which it was built. Most homes in the area were built by owner-builders or small contractors, and the historic residential land use patterns and practices for the most part have been maintained.

Existing and Future Uses (Virginia City Planning Sub-Areas)

Virginia City is a mixed-use community of low- to medium-density residential uses integrated with commercial, industrial, public, and tourism uses. Single- and multifamily residences exist in the downtown commercial area and its surrounding neighborhoods, and in some cases they interface directly with historic heavy and light industrial zones and uses. The following describe patterns of use occurring throughout Virginia City.

The four Virginia City sub-areas should be considered specific plans for the purposes of this master plan:

- Downtown
- Ophir Neighborhood
- Virginia and Truckee Midtown Area
- Silver Star Neighborhood Area

Downtown Area Specific Plan

State Route 341, also known as C Street, is the main thoroughfare of Virginia City. Commercial uses along C Street are predominant but they are heavily integrated with single- and multifamily residential, public, and other non-commercial uses. There are also vacant lots in this area that are suitable for continued mixed-use development. Secondary to the main commercial corridor is B Street. This corridor contains commercial establishments, but to a much lesser degree than C Street. Its commercial uses include Piper's Opera House, including an independently owned saloon on its first floor; several fraternal lodges; bed-and-breakfast inns; and one or more retail shops. Some hotels and other uses abutting C Street run the entire length of their parcels and abut and/or provide secondary rear-access from B Street. The Storey County Courthouse is located toward the mid-point of B Street, and it remains the center of local government and Nevada's First District Court. Residential uses along B Street are abundant and include free-standing multifamily and single-family dwellings as well as flats above C Street facing businesses. Virginia City, with its dense mixed-use commercial core and immediate surrounding residential community, provides an authentic small-town environment that is emulated in many new communities today. "New Urbanism" and neo-traditional community planning share a philosophy centered on creating strong sense of community by incorporating core elements of traditional small towns into new and revitalized communities. Compact walkable neighborhoods are integrated with active streets and mixed-use commercial centers. The strong sense of community is depicted in the 2010 photograph of a local coffee shop with its local patrons spilling into the town's main street while the shop owner shoes a neighbor's horse (Figure 3.4-3). Second to C Street, the highest concentration of late nineteenth century buildings of Victorian and Italianate architecture is found on A and B Streets. Many of these structures have undergone partial or complete restoration and several have been converted to bed-and-breakfast inns.



Source: Virginia City Tourism Commission 2016

Figure 3.4-2: Virginia City Looking South



Source: Storey County Planning Department 2012-2015

Figure 3.4-3: Community Members Outside a Downtown Virginia City Coffee Shop

Ophir Neighborhood Area Specific Plan

The area west of the downtown corridor and north of Washington Street, including Summit, Howard, and A Streets, is mostly composed of single-family residential uses. One exception is the historic Cobb Mansion bed-and-breakfast inn that currently operates on A Street. This area includes Virginia City's highest concentration of nineteenth century mansions, and today retains the authentic character and feel of the former upscale district (Figure 3.4-4). Prominent buildings on A Street include the King-McBride Mansion, Cobb Mansion, Piper-Beebe House, and many other Gilded Age mansions and homes.



Figure 3.4-4: Examples of Typical Architecture in the Ophir Sub-Area of Virginia City

This area is expected to retain its single-family residential use pattern for the foreseeable future. However, case-by-case considerations have been given to applications for bed-and-breakfast inns when proposals are compatible with the residential and historic character of the area. Multifamily, commercial, and motel and hotel lodging uses have been proposed in this area over the past ten years but were denied by the Board and Planning Commission due to incompatibility with existing uses.

Parcels on the same north-south oriented streets, but south of undeveloped Washington Street, are unimproved, and due to steep and irregular topography and platted roads that do not conform to natural topography, are not currently considered practical for building. However, as other areas in Virginia City are built out, and the demand for premium viewshed real estate increases, proposals to develop this land should be expected. Reconfiguring parcels and public rights-of-way in this area to better conform to local topography may enhance development marketability in this area and facilitate additional housing opportunities. Diverging from historic grid-pattern parceling in this area, such as through the merger-and-re-subdivision process, should be considered.

Virginia and Truckee Midtown Area Specific Plan

The area immediately east of downtown, including most of D-, E-, and F Street, is composed of sporadic clusters of commercial, and single- and multifamily residential uses separated by large tracts of vacant land. Most of the buildings and uses in this area are remnants from the nineteenth century which to this day are occupied and used much as they were a century ago.

This two-mile corridor is becoming increasingly significant to Virginia City's overall tourism and economic development portfolio. The following subsections describe projects and improvements that should be considered when planning for area improvements and tourism.

Freight Depot and Tunnel Six

Constructed in 1869 and decommissioned in 1938, the Virginia & Truckee Railroad Freight Depot, in Virginia City at the corner of Sutton and E Streets, served as the town's supply distribution center for the Virginia & Truckee Railroad. The Freight Depot was vacant and unchanged for many years. This property was recently acquired by Storey County, and improvements to the Depot structure and the site are planned to allow for community and tourist events, and parking.

Soon after the freight depot was decommissioned in the 1930s, Tunnel Six, which facilitated a portion of the railroad's alignment from its current terminus east of Hugh Gallagher Elementary School to the freight depot, was also abandoned and partially backfilled rendering it inaccessible and useless. The County has discussed restoring the tunnel and train service to the Freight Depot and this Master Plan encourages further evaluation to determine if reconnecting train travel through the tunnel to the Freight Depot is desirable and feasible to the Virginia City community.

Fairgrounds Area Progress and Future Plans

Until 2015, the Virginia City International Camel Races and other similar events were held at a makeshift riding arena on vacant land two blocks east of the Virginia City Freight Depot and the Silverland Inn and Suites hotel (Figure 3.4-5). The ability of this land to facilitate tourism uses has, over the years, become increasingly problematic. The popularity and size of annual events have expanded beyond the capacity of the land.

In 2015 the Virginia City Tourism Commission, out of necessity, relocated its planned special events to another tract of land on F Street approximately one mile south of the old arena area. Storey County subsequently purchased the land, which is now identified as the fairgrounds. Since 2015, the Virginia City Tourism Commission has successfully transformed the area into a vibrant hub for events (Figure 3.4-5). Annual events, such as the Virginia City International Camel Races, continue to attract significant crowds, capitalizing on the improved infrastructure and ample space available at the new location. Virginia City Tourism Commission and local groups are exploring expanded programming as a result of ongoing partnerships. In addition, there is interest in using the venue from rodeo events and other outdoor sports organizations. The acreage, layout, and location of this land make it ideal for large events.

Looking ahead, the Virginia City Tourism Commission envisions further development at the fairgrounds to bolster its role as a permanent fixture for major events. Near-term planned improvements include Americans with Disabilities Act parking and access to the main event area, water main expansion and electrical improvements for sound equipment, electrical hook-ups for vendors, and an Americans with Disabilities Act- accessible restroom facility. Key future projects under consideration include:

- Construction of permanent, dedicated fairground facilities, and upgraded visitor amenities.
- Installation of a permanent ticket booth to facilitate efficient entry for larger events.

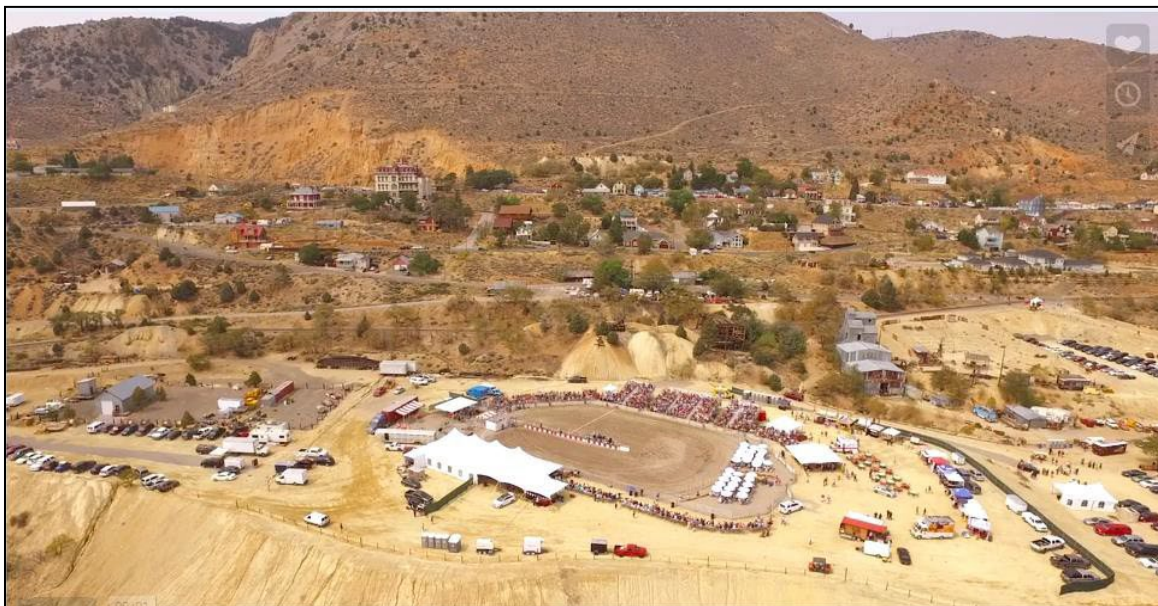
- Enhanced infrastructure for large-scale event hosting, such as improved parking areas, permanent restrooms, and vendor spaces.
- Collaboration with Storey County to ensure appropriate zoning is in place to accommodate future growth while maintaining compatibility with surrounding land uses. The land is currently zoned Public (P) and Heavy Industrial (I2), and the County should consider applying zoning that better accommodates anticipated uses.

These future projects would make the fairgrounds area a long-term, sustainable site for both large-scale events and regular tourism attractions, further cementing Virginia City's reputation as a premier destination for heritage tourism.

Virginia City Middle School and Hugh Gallagher Elementary School

The Storey County School District is proposing to construct new facilities for the elementary school and the middle school. The new facilities are proposed adjacent to the existing Virginia City High School. A school district campus would be proposed at that location. The School District has indicated a desire to convey the existing elementary school and middle school properties to Storey County. The existing buildings will be vacated and may facilitate spaces for Storey County services or offices. Further evaluation of these buildings will need to occur to determine the best possible use, if any, for these structures and how to incorporate them into the Virginia City community. More discussion of this topic can be found in Chapter 9 – Public Services & Facilities.

Tourism uses are expected to expand significantly along this entire corridor. While promoting tourism events and other uses, as well as their supporting infrastructure, special considerations should be taken in this area on a case-by-case basis to ensure compatibility between residential and non-residential uses in the immediate area.



Source: Virginia City Tourism Commission 2015

Figure 3.4-5: Virginia City Fairgrounds on F Street during the 2015 Annual International Camel Races

Silver Star Neighborhood Area Specific Plan

The area east of downtown and the Virginia and Truckee Midtown areas generally include land between G and R streets and other areas of Mount Davidson's lower slope (Figure 3.4-6). This area is mostly comprised of single-family detached residential uses, but also includes public uses such as the high school, public utility substation, transfer station, sewer treatment plant, and St. Mary's Art Center. As part of land transferred to Storey County under the 2018 U.S. Bureau of Land Management Lands Act, additional public facilities may be constructed in this area in the future for the benefit of Virginia City and Storey County residents. Several ancillary uses such as horse corrals and unoccupied vacant buildings also occupy the area. None of these uses appear to conflict with the surrounding residential neighborhood.

Continued residential infill is expected to persist in this area for the foreseeable future. The rate of growth may accelerate moderately with enhancements to local water and sewer infrastructure (see Chapter 9 – Public Services & Facilities).

While it is important to promote tourism and protect other historical non-residential uses in the area, special case-by-case consideration should be made for non-residential uses to ensure that they remain compatible with the surrounding residential environment.



Source: Virginia City Tourism Commission 2016

Figure 3.4-6: Single-Family Residential Neighborhood in Eastern Virginia City

Virginia City Sub-Planning Area Maps are included in Figures 3.4-7, 3.4-8, and 3.4-9.

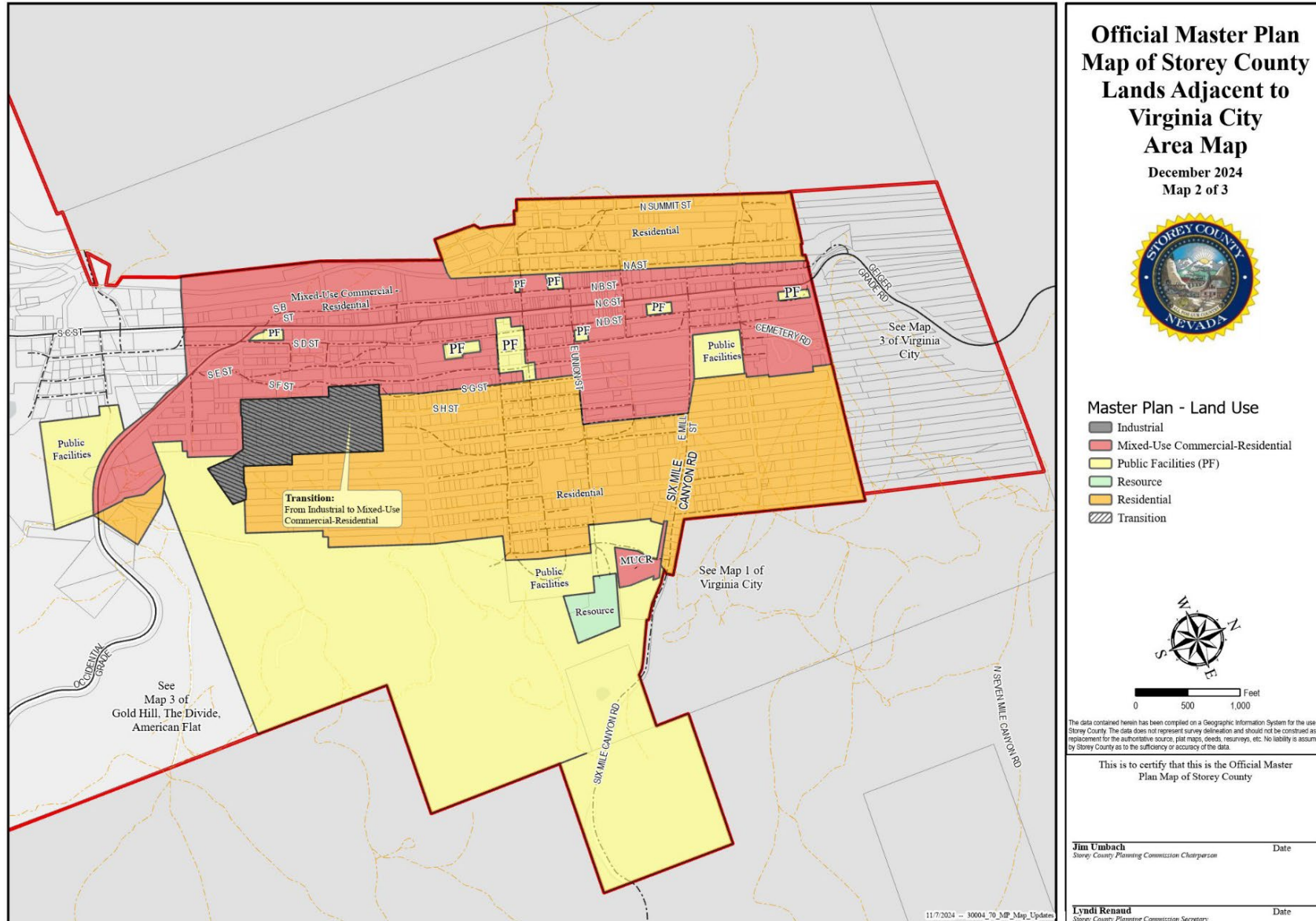


Figure 3.4-7: Master Plan Virginia City Sub-Planning Area Map

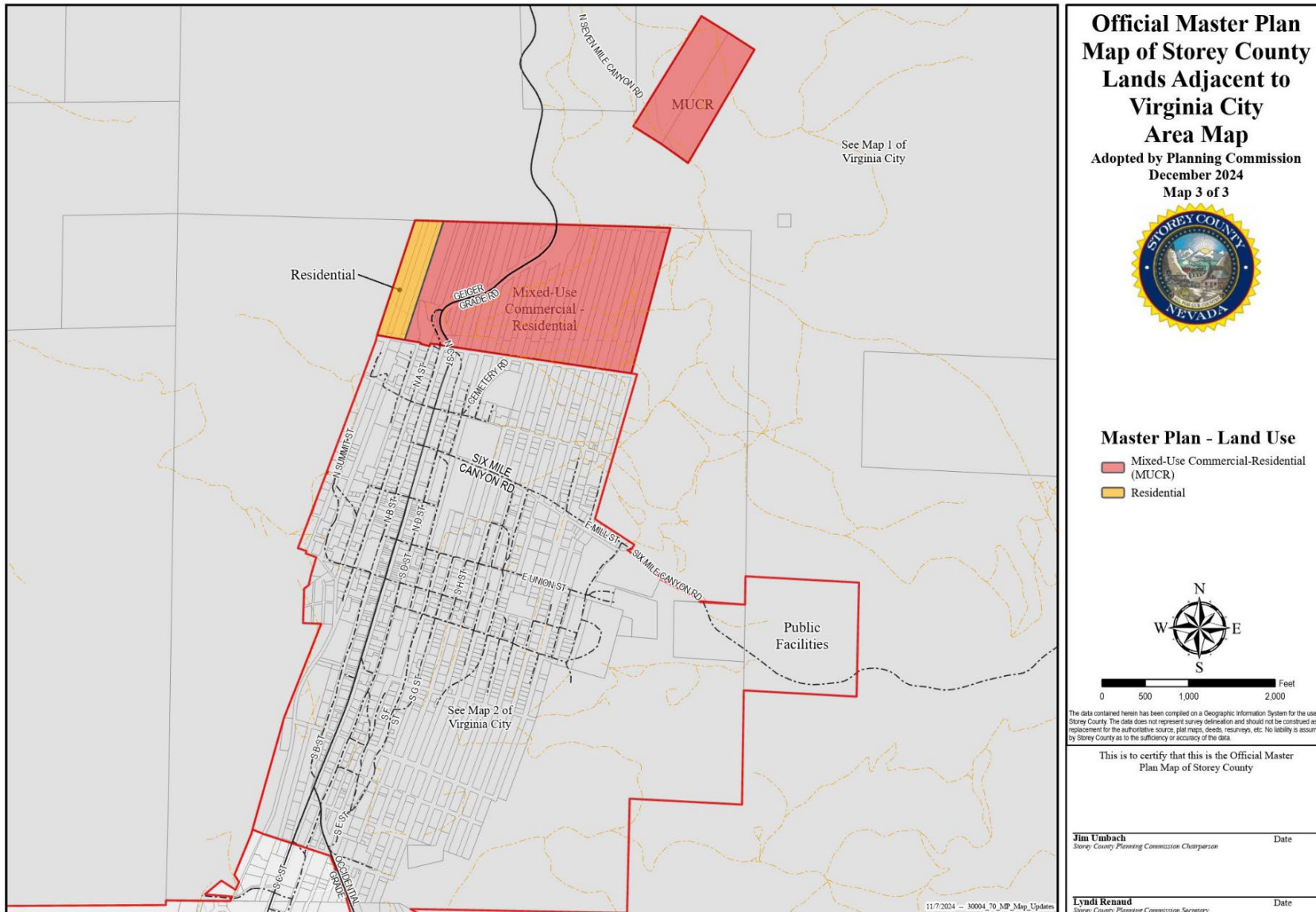


Figure 3.4-8: Master Plan Virginia City Sub-Planning Area Map

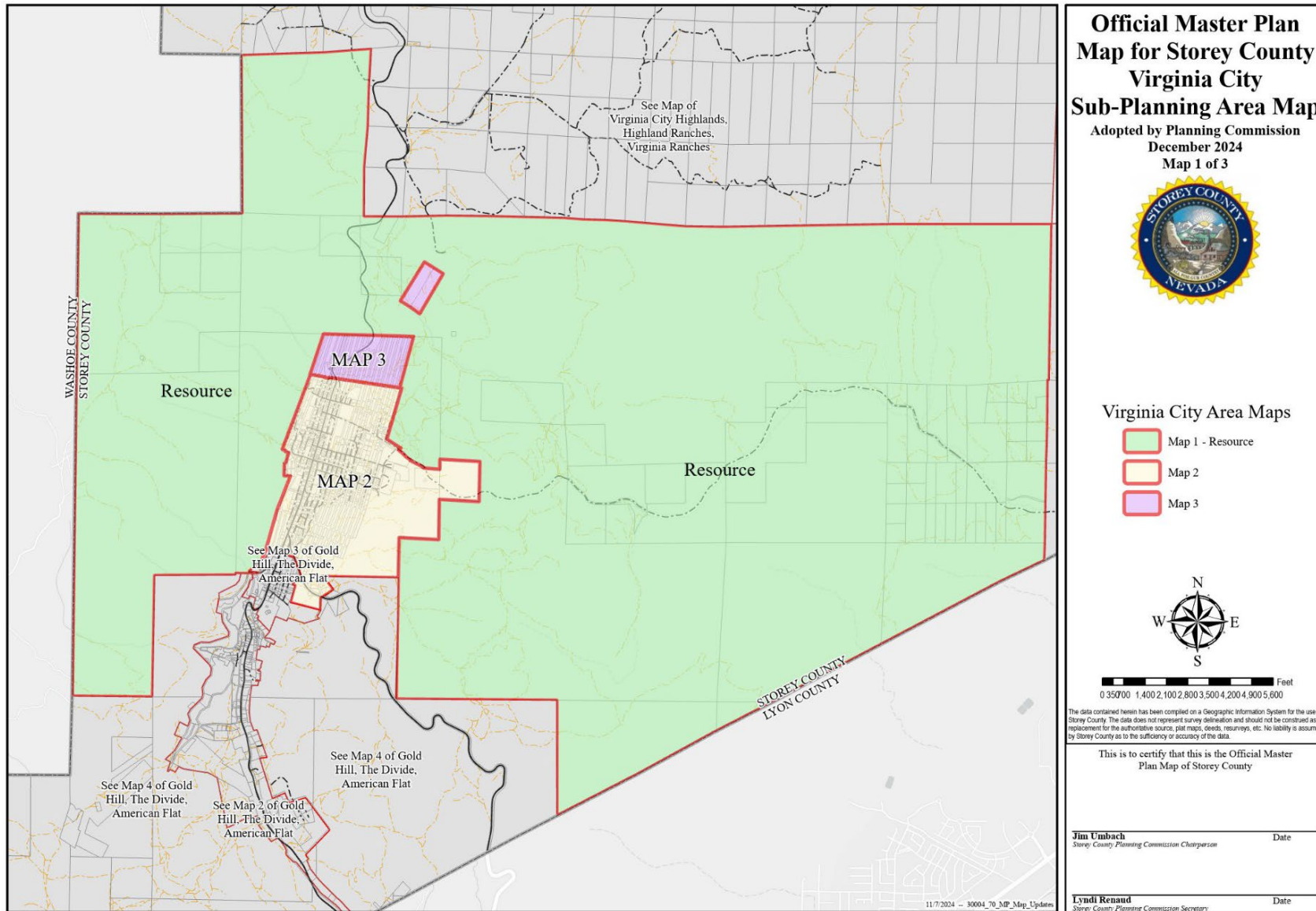


Figure 3.4-9: Master Plan Virginia City Sub-Planning Area Map

The Divide

The Divide is immediately south of Virginia City along State Route 342. It is situated on a bluff at the apex of Gold Canyon and is named for its intermediary placement between Gold Hill and Virginia City. This approximately two-square-mile area is comprised of single-family residences sporadically intermixed with commercial and public services and facilities uses (Figure 3.4-10).

The Divide, one of the three major communities on the Comstock, is an emerging mixed-use community of single-family residences and commercial uses, including two motels, physical fitness center, long-standing non-profit social services center, the Virginia Township Justice Court, and several state- and county public works facilities. The community's population is estimated around 200 people, similar to that of Gold Hill to the immediate south. This area is outside the commercial tourism core of Virginia City. However, there are many easily developable parcels abutting State Route 342 with high potential for commercial uses (Figure 3.4-11).

Housing and economic activity in this area is likely to grow in the coming years as affordable and buildable sites in Virginia City become increasingly scarce. Local demand for non-tourism-oriented retail and commercial services may be the predominant drive for growth in this area. Public works facilities in this area have expanded steadily in a commensurate level with population and commercial growth in the south part of the county, and it is expected that these facilities will grow at their current locations and at a similar rate into the foreseeable future.

Continued commercial expansion will contribute to the area's historic growth pattern and enhance the mixed-use character supported by this master plan. However, it is important to manage commercial uses in this area so they remain compatible with the intermixed residential community. Special consideration should also be taken to ensure that existing and future expansions of public works facilities occur in an opposing direction to residential uses in order to minimize potential conflict.

The area west of Highway 342 has a concentrated area of public service uses including the Nevada Department of Transportation yard, the Storey County Justice Court, the Storey County water treatment plant, Storey County water tanks, and an AT&T substation. This area also has direct access to the back-country trail system along Ophir Grade and access to Mount Davidson and McClellan Peak. Future uses for this area may include additional public facilities such as trail head improvements, a rest stop, and improvements for recreational trails. Future development shall be considerate of existing adjacent land uses while also providing for public services and recreational opportunities. Additional public services and recreational opportunities may be available within the Bullion Ravine. Public right-of-way does exist and a secondary access for pedestrians, bicyclists and Off-Highway Vehicle (OHV) users may be desirable to avoid the Greiner's Bend roadway segment, which can be hazardous because of the rate of speed, the tight turns, and minimal shoulder. Utilizing the Bullion Ravine could separate users and provide a safer access between Gold Hill and Virginia City, which could encourage more opportunities for connection between the communities. Additional study is necessary to determine if access could be connected and if additional land may be needed to construct such access at a reasonable slope.



Source: Storey County Planning Department 2015
Figure 3.4-10: The Divide from Ophir Grade, view to the east



Source: Jessie and Nick Fain 2016
Figure 3.4-11: Recent Commercial Expansion along State Route 342

Gold Hill

Location and General Description

The 1863 Official Plat of Gold Hill shows a town and lot layout based upon the steep contours of upper Gold Canyon and the boundaries of mining claims. Gold Hill's namesake was reportedly a reddish-yellow hill (a "gossan") north of the Virginia & Truckee Railroad Depot until the 1970s when the Imperial Pit was dug by Houston Oil and Minerals mining company.

In general, Gold Hill's fragmented townsite lots appear to have been haphazardly located according to squatters' code of first-come-first-served during the heyday of the Comstock Lode. The 1863 Plat was drawn four years after Gold Hill became populated. Historic photographs show that Gold Hill was once a densely populated mixed-use community. Today, most of its parcels are vacant with most remaining buildings concentrated at the upper part of Gold Canyon. Gold Hill remains a mixed-use community of residential, commercial, and mining uses.

Existing and Future Uses

Commercial Uses

Commercial uses in Gold Hill include the Gold Hill Hotel and Crown Point Restaurant, both abutting Main Street (State Route 342) just east of the Virginia and Truckee Railroad lines. In 2005, the Virginia & Truckee Railroad was expanded approximately 12 miles south of its terminus at the Gold Hill Train Depot to Flint Drive in Carson City. The rail extension has made the Virginia & Truckee short- and long-lines a significant contributor to the region's tourism economy. The Gold Hill Train Depot, adjacent to the Main Street rail crossing, has also undergone substantial restoration over the past decade. As the region's tourism economy grows, the train depot will likely serve as an increasingly significant intermodal transit center, as well as museum and history center, that will increase tourism traffic to local private businesses.

Several historic industrial sites and structures still exist in Gold Hill but are either dilapidated or are intact but have remained dormant for decades. The Crown Point Mill, a cyanide-based ore processing plant last operated in 1947, is the most prominent industrial facility remaining in Gold Hill.

The area also contains a public and tourist kiosk along Highway 342 that portrays the history of the location and a roadside stop with interpretive signage along Sky Lane. The Cabin in the Sky building is located off of Sky Lane and once operated as a restaurant, which has been closed for many years. There may be opportunity to re-evaluate this area for future tourist or commercial growth once utility services for the overall Gold Hill area have been addressed.

Public Utilities

Future growth within Gold Hill will depend on the availability of water and sewer services. Water is supplied to the Gold Hill area by the Storey County public system. At this time, the water service lines are antiquated and subject to frequent breaks and service disruption. Storey County is seeking federal and other funding to replace these service lines while also not placing the entirety of the cost burden for replacement on the small number of users of this water system. Storey County continues to seek opportunities to identify options that would allow for the water line replacement, while making economic sense for the County and the water users.

Similar to the water service, the Gold Hill sewer system needs replacing. The Gold Hill package sewer plant was recently constructed to replace the previous system, which had environmental issues and did not function properly. Grant funding was obtained to address the failing system; however, the grant funding did not allow for any expansion to the facility. The facility was rebuilt to the current capacity, but the facilities themselves were designed to be able to expand capacity at some point in the future. Besides the package plant expansion, replacement of service lines is also needed to allow for the existing connections to continue in addition to being sized to allow for future connections. Similar to the water service, Storey County is seeking opportunities to assist with the cost of replacement and expansion, while being mindful of the costs to the residents, both the existing users and future development parcels.

Until the water and sewer services can be addressed, limited to no growth within the Gold Hill area is expected. Some larger parcels may be able to install a well and septic system following the State of Nevada requirements for parcel size and water rights acquisition and be allowed to develop, but many parcels are below the parcel size requirements, are not eligible to install their own water and sewer facilities, and would need to rely on a municipal system for services.

Drainage

The steepness of the Gold Hill area creates drainage problems during and after storm events. State Route 342 is the existing main channel for runoff, with water following the street and minimal roadside channels where they exist. Besides the water runoff, debris from the runoff ends up on the pavement or blocking the narrow channels causing runoff to seek new areas, which creates erosion and additional sediment ending up on the roadway. The west side of Gold Hill has several ravines that capture runoff from the hills to the west, bypassing the roadway, but it is unclear if much of the runoff following the roadway ends up in any of the ravines.

In 2023, the Nevada Department of Transportation paved the roadside channels to help eliminate sediment from the roadway. Although this may assist with reducing some sediment and erosion, it doesn't appear that these improvements were engineered to address runoff amounts or direct runoff to more appropriate locations. The Carson Water Subconservancy District was awarded a grant in the Fall of 2024 to work with both Storey County and Lyon County to develop a master drainage plan of the Gold Hill and Silver City areas of Gold Canyon. This study is similar to drainage plans that were completed for the Mark Twain neighborhood and the Virginia City and Six Mile areas. The outcome of the plan should identify future projects to consider in order to address the drainage occurring within the area and how to best address physical projects to reduce the impacts the storm events have on the area.



Source: Storey County Planning Department 2014

Figure 3.4-12: Crown Point Mill, Gold Hill

Mining Uses

A resurgence of mining activity on the Comstock, particularly in lower Gold Hill, has occurred since 2007. Downward national and global economic trends and the resultant rise in commodity prices fueled interests and made mining a viable use of the land. However, more recent economic global trends including the cost of permitting and operating a mine create uncertainty in the medium- and long-range prospects of mining in the local area.

Gold Hill has historically been a center for mining and milling activity. Modern mining in Gold Hill included projects by United Mining and Houston Oil and Minerals in the 1970s and 1980s, and most recently activity in the southern Gold Hill area by Comstock Mining Inc. Large-scale surface mining, especially in and around the Lucerne Mine area, and underground mining is expected to continue into the future. Planning decisions to allow mining activities in this area should consider and mitigate adverse impacts to the surrounding residential community as well as to local tourism, including in Gold Hill and Virginia City, and Silver City in adjacent Lyon County.

In 2012, the Board with recommendation by the Planning Commission approved major modifications to the County's zoning ordinance regarding surface and underground mining. It enhanced local regulations on surface mining while partially deregulating underground and other mining activities believed to have nominal impacts on other uses and the integrity of the Virginia City National Historic

Landmark. In 2014, the new regulations were applied to Comstock Mining Inc.'s major special use permit amendment. A significant difference between the company's previous and amended special use permit is the mandate that the company must post mine reclamation surety bonding that extends beyond the requirements of the Nevada Division of Environmental Protection and other applicable agencies. Similar regulations should be applied to future mining operations in the Virginia City area. Mining may intermittently be a significant use in Gold Hill for the foreseeable future; and County officials will be continually faced with balancing mining and non-mining interests in the area. Active mining in the area is shown in Figure 3.4-13.



Source: Storey County Planning Department 2014

Figure 3.4-13: Active Mining in the Gold Hill area: Sutro Mine (top) and Harris Portal of the Lucerne Project, Comstock Mining, Inc. (bottom)

American Flat

Location and General Description

American Flat is an approximately four-square-mile valley southwest of Virginia City and west of Gold Hill. It was named after American City, which was built toward the middle of the valley and was slated to become Nevada's State Capitol, but met its demise in the early 1900s. Since then, American Flat has been home to several intermittent mining-related uses including the United Comstock Merger Mill in the 1920s, the United Mining and Houston Oil and Minerals processing facility in the late 1970s and early 1980s, and currently Comstock Mining Inc. cyanide heap-leach processing facility.

Existing and Future Land Uses

Today, American Flat is mostly undeveloped. Several remote private residences and an approximately 60-acre dilute cyanide heap-leach ore processing facility are located toward the northwest side of the valley. The heap-leach facility processes ore from a surface mine owned by Comstock Mining Inc. and which exists approximately three miles to the east of Gold Hill. Many homes purchased by the mining company between 2014 and 2018 have been resold back to individual owners.

The historic United Comstock Merger Mill, constructed and operated in the 1920s, was demolished by the U.S. Bureau of Land Management in 2014 after findings from its environmental assessment deemed the facility and the surrounding 60 acres to be a nuisance and unsafe. Nearly no physical evidence of the facility's prior existence remains at the site today (Figure 3.4-14).

American Flat was also home to a significant portion of the Virginia & Truckee Railroad alignment between Virginia City and Carson City. However, it was decommissioned in the 1950s and the tracks were pulled up and much of the right-of-way was sold. In 2005, after years of studies, right-of-way acquisition, and fund-raising, the Nevada Commission for the Reconstruction of the Virginia & Truckee Railway rebuilt the railroad along its approximate original alignment through American Flat from Gold Hill to Carson City. Today multiple short- and long-line Virginia & Truckee Railroad trains operate on the alignment throughout the year.

American Flat may have considerable land use potential which should be closely analyzed. Its proximity to Virginia City and Gold Hill and its remoteness from populated areas has made it an acceptable location for ore processing. American Flat is also a short distance from Dayton and Carson City, and is only a few miles from an industrial center in adjacent Mound House in Lyon County. American Flat is principally accessed from State Route 342 and American Flat Road. An unimproved secondary access located toward the southwest part of the valley connects this area to Red Rock Road and Highway 50 in Mound House.

Water availability in American Flat may significantly limit future growth in this area. In 1964, Storey County excised American Flat from the town site of Gold Hill and from Marlette Water System services and is now supported by two domestic groundwater wells. Most of the groundwater in this area has been appropriated to uses in Mound House. Remaining groundwater in this area is unlikely to be sufficient to support significant development in American Flat. The Water Resource Plan assumes a build-out demand for American Flat of 296 acre-feet annually based on the master plan designated land uses, a significant increase from 4.5 acre-feet annually of existing demand in 2023. Additional development within this area will require connection to the County Water System and upgrades to the water system including 750,000 gallons of aboveground storage and 3,100 linear feet of one-inch diameter transmission main, and improvements to the Gold Hill pressure zone according to the Storey County Water Resource Plan (Farr West Engineering 2023, included as Appendix B).

By rescinding the action removing American Flat from Gold Hill and from Marlette Water System service, the County Board of Commissioners may effectively return potential development capacity to this area. For more information on County water systems, see Chapter 9 – Public Services & Facilities and Chapter 10 – Water & Natural Resources.

Much of the land in American Flat is federally owned. Like Virginia City and Gold Hill, many parcels in this area were not surveyed or properly recorded, and ownership disputes often occur between land

owners and the U.S. Bureau of Land Management.

American Flat may have land use potential that should be closely analyzed. Local characteristics of this area may result in proposals for its development. The potential for major expansions related to mining and processing are highly likely to occur into the foreseeable future. Despite its remote location, careful consideration should be taken to assure that all allowed uses and growth patterns conform to the historic character of the Comstock area.



Source: U.S. Bureau of Land Management, Environmental Assessment for the United Comstock Merger Mill at American Flat. (December 2022)

Figure 3.4-14: United Comstock Merger Mill before Demolition

On the following pages, Figures 3.4-15, 3.4-16, 3.4-17, and 3.4-18 show Sub-Planning Area Maps for Gold Hill, The Divide, and American Flat.

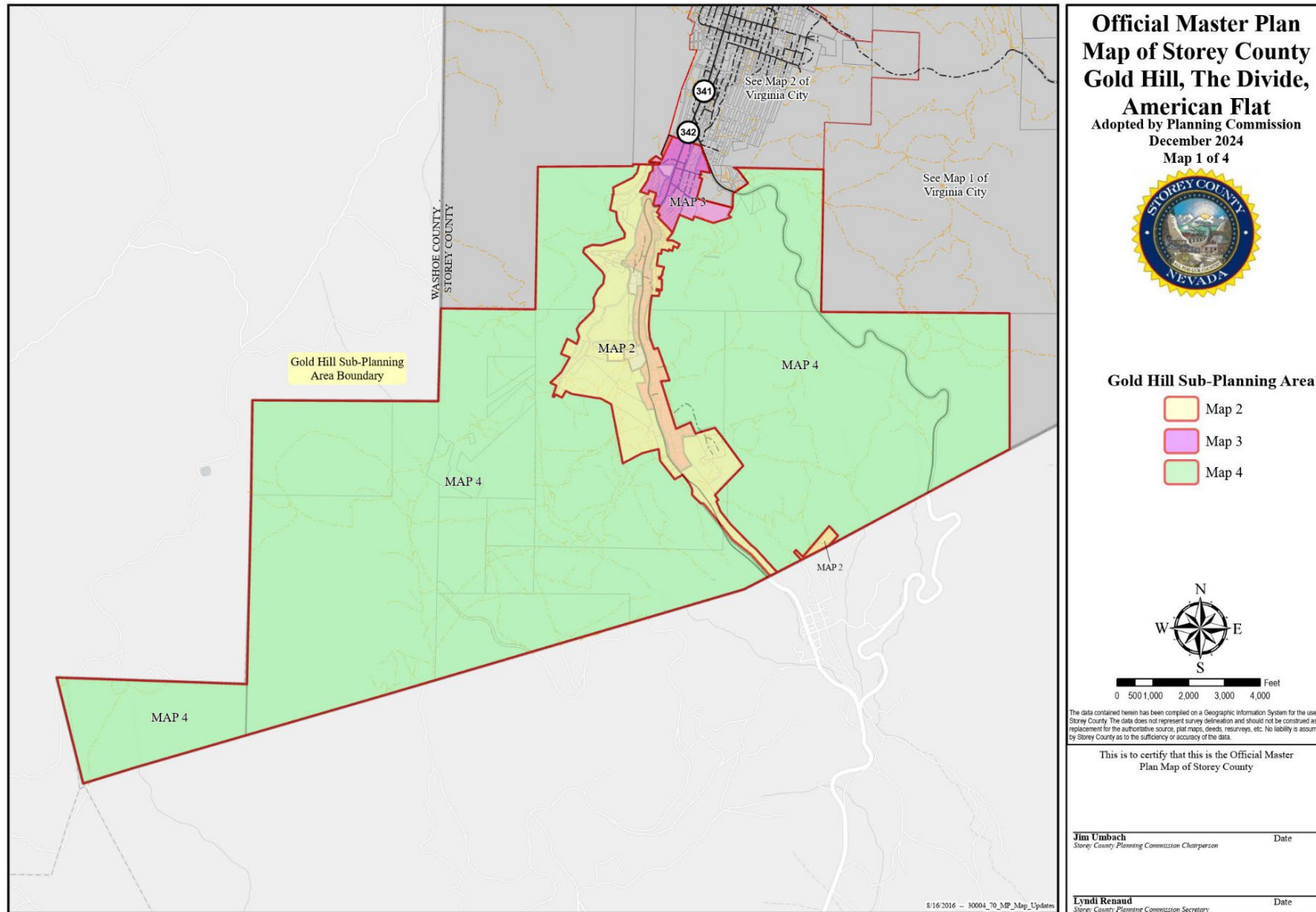


Figure 3.4-15: Master Plan Sub-Planning Area Map for the Gold Hill Area

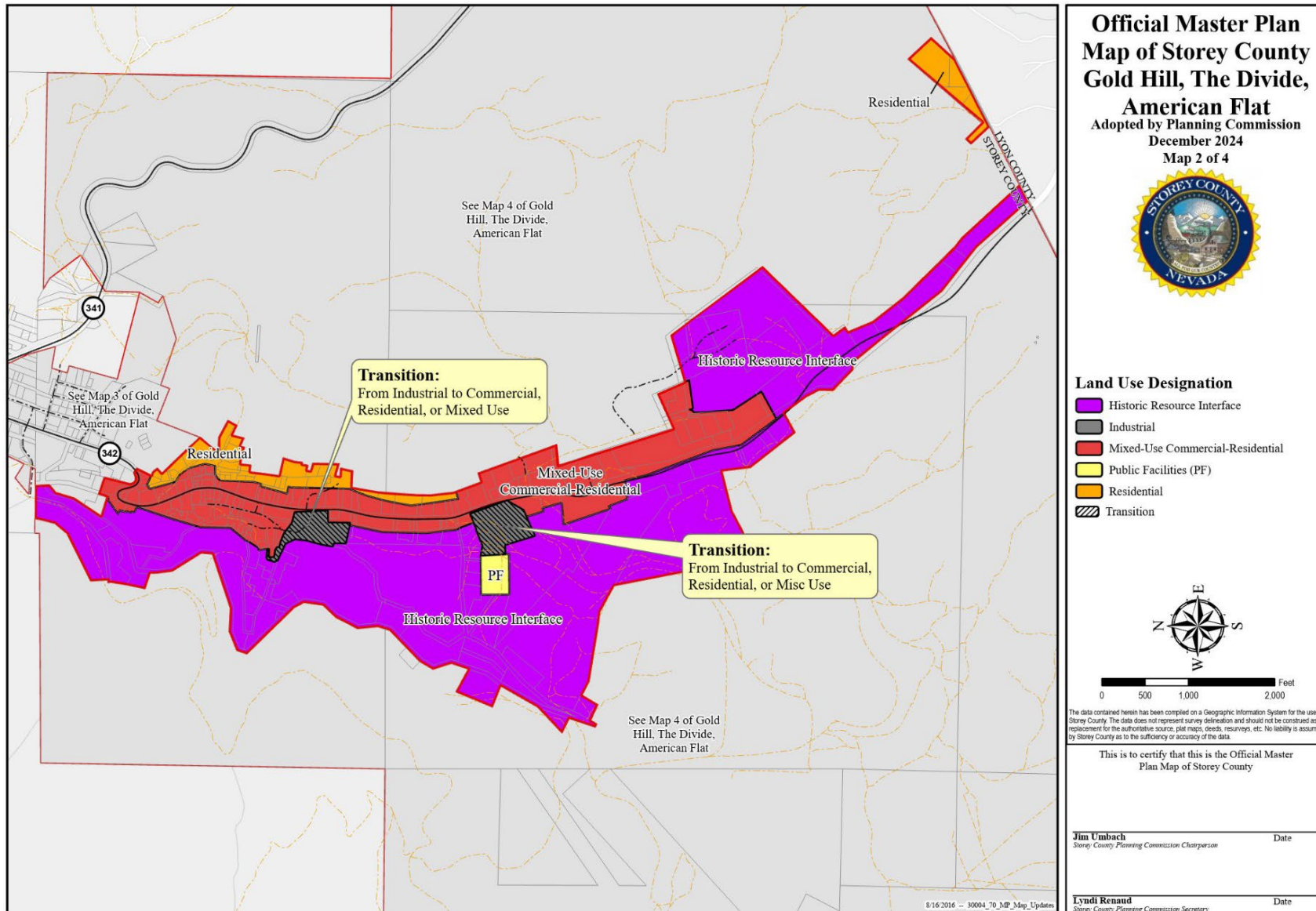


Figure 3.4-16: Master Plan Gold Hill Sub-Planning Area Map

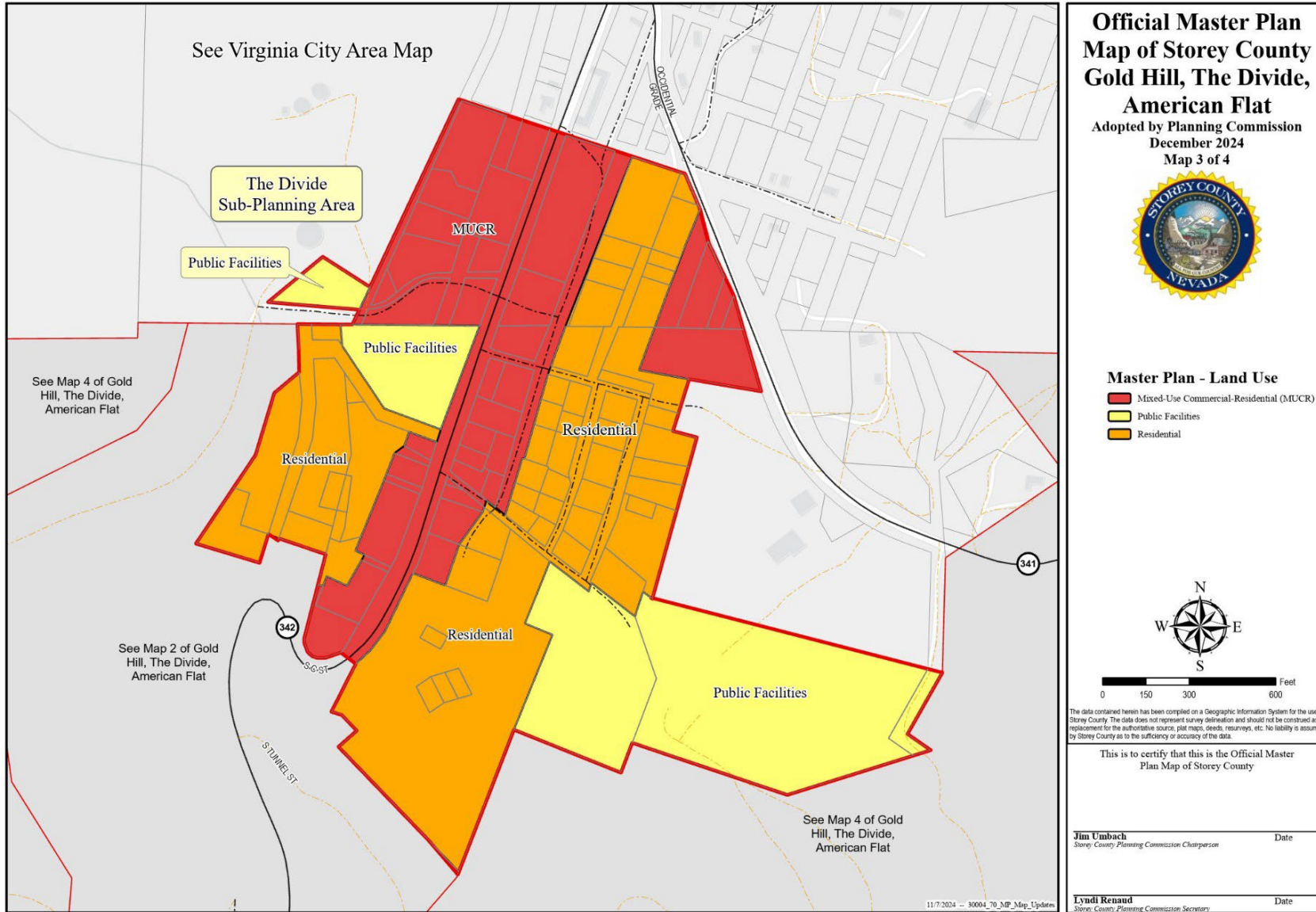


Figure 3.4-17: Master Plan The Divide Sub-Planning Area Map

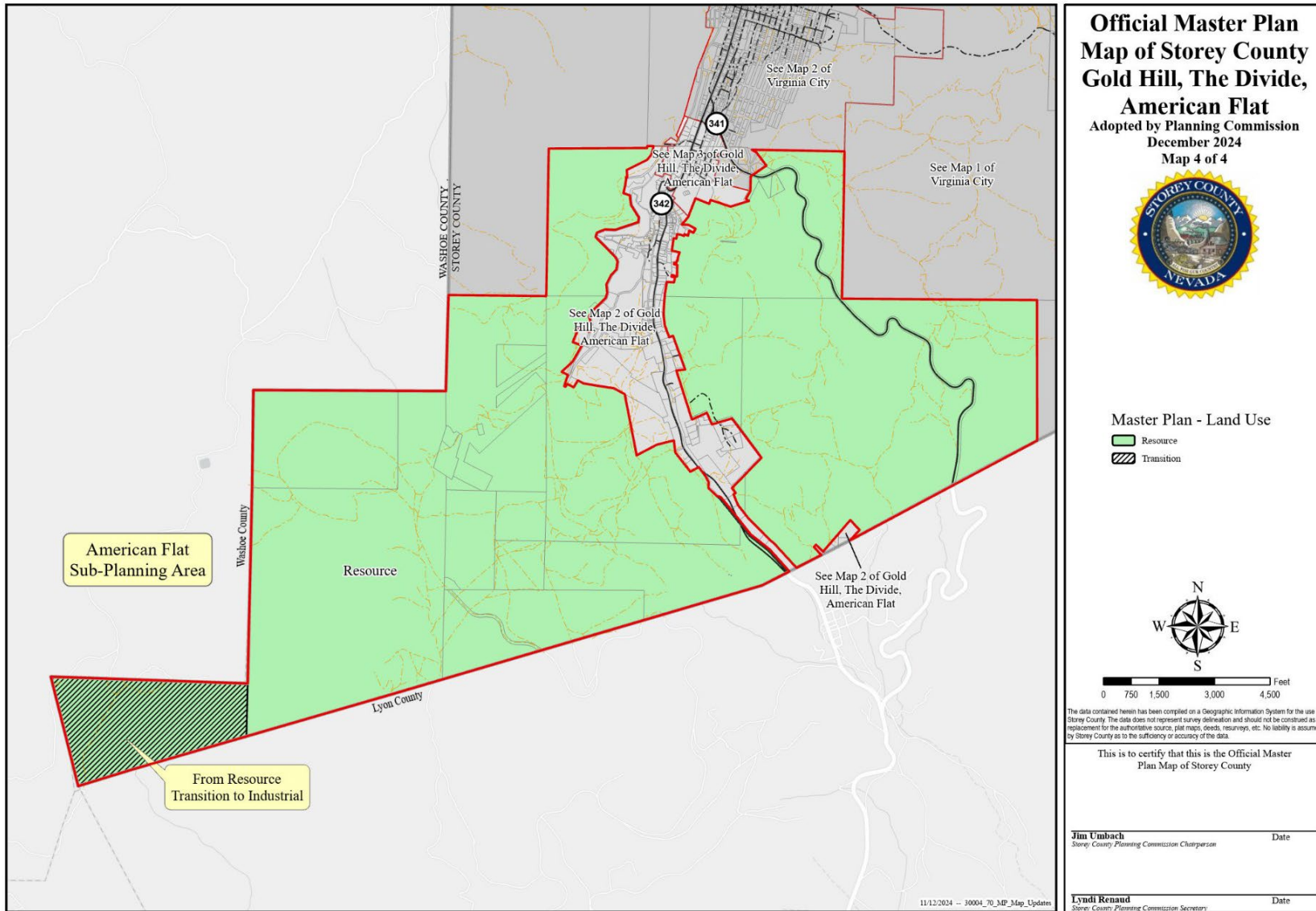


Figure 3.4-18: Master Plan American Flat Sub-Planning Area Map

3.4.2.2 Key Issues in the Comstock Area

Revitalization and Historic Preservation

Pursuant to Nevada Revised Statute Chapter 384, the Comstock Historic District Commission is responsible for maintaining the historic and architectural characteristics of existing and future structures in Gold Hill, Virginia City, and other areas within the historic district. However, the Historic District Commission has no regulatory jurisdiction over the use, alteration, or degradation of natural and man-made landforms, or the overall plat layout and town atmosphere that contribute to the historical authenticity of the communities and surrounding environment.

The 1990 Comstock Project Sensitivity Study analyses and recommendations were embedded as appendices supporting the goals and objectives for historic preservation in the 1994 County Master Plan and are included as such in Appendix C of this master plan. The report described the pattern of continued degradation from development and mining that “has intensified the destruction of archeological sites” throughout Gold Hill, Virginia City, and surrounding areas. The report also states the Comstock Historic District may be overwhelmed by the number of buildings and structures needing attention and the task of managing all aspects of growth in the area may be “too large a responsibility for one small agency only partially related to county government.” Additionally, federal and state regulatory oversight and subsidies for historic preservation and rehabilitation may be limited, unpredictable, and may be inconsistent with local interests, and, therefore, should not be solely relied upon. Instead, “responsibility must be borne by all aspects of county government” in concert with efforts of the Historic District Commission.

The 1994 County Master Plan suggested forming an economic development agency to work with private enterprise to create a predictable environment for investment in the Comstock area that would result in commercial revitalization supporting historic structure rehabilitation and preservation.

From 1995 to 2015, tourism in the Comstock area experienced periods of volatility. Largely to blame for downward trends are gaming on tribal lands in the State of California and other parts of the nation; cancellation of the television program “Bonanza” in the 1980s; rising transportation costs; tighter enforcement of traffic laws; and instability in the national and state economies.

Strategic marketing, expanding attractions and events, and focus on attractions that bring overnight stays have become paramount to improve business in the area. In accord with the 1994 County Master Plan, the Virginia City Tourism Commission (formerly Virginia City Convention and Tourism Authority) today promotes and supports Comstock business and tourism attractions.

Working collaboratively with county officials, the Comstock Historic District, and local, state, and federal organizations and agencies, the Virginia City Tourism Commission is identifying needed improvements in the area and is supporting efforts and programs such as grants, subsidies, and local planning efforts to improve the image of the Comstock area and the experience it provides to visitors and businesses.

The efforts of the County, Tourism Commission, and other stakeholders to promote economic development and preserve and rehabilitate historic resources, may be complemented by forming a revitalization or redevelopment district for Virginia City and Gold Hill that would provide for

increased eligibility for federal and state assistance and a unified organized effort to revitalize the downtown area.

Efforts to preserve the distinct character of the Comstock should not be solely focuses on buildings, structures, and economic development. As stated earlier, the Comstock Historic District has no regulatory jurisdiction over non-structural elements within the historic district including layout of roads and plats; landscapes, landforms, and natural monuments; historic mine dumps and tailings; and new uses that substantially alter or degrade these natural features. There is virtually no regulatory oversight of such activity by the County, and the distinctive historic landforms in the area are disappearing (Figure 3.4-19). Efforts should be made to preserve these man-made land features as much as possible while still allowing individual land owners to develop the underlying parcels. The natural backdrop of Virginia City, Gold Hill, and American Flat is of equal historic importance to the many structures and uses of the Comstock Lode era that remain throughout the Comstock area today. Additionally, the County may have limited regulatory jurisdiction on uses occurring on federally owned lands within the historic district.

The 1994 County Master Plan suggests that County leaders preserve the distinctive historic character throughout the Comstock area, through local land use decisions including layout of roads and plats, placement of structures, and review of land use allowances including certain landscape features identified in the Sensitivity Study of the Storey County portions of the Comstock Historic District (Appendix C). County officials should work with landowners, residents, businesses and, where applicable, the U.S. Bureau of Land Management, in considering regulations and/or incentive programs that allow appropriate development to occur while considering the importance of key landmarks identified in this plan.



Sources: Virginia City Tourism Commission 2016; Storey County Planning Department 2015

Figure 3.4-19: Existing mine dumps and tailings contribute significantly to the local historic landscape.



Source: Virginia City Tourism Commission 2016

Figure 3.4-20: The Vicinity of Virginia City, Gold Hill, and American Flat

Renewable Energy

Maintaining the feeling of historic place and authenticity throughout the Virginia City National Historic Landmark, inclusive of its structures and overall natural and manmade environment, is an imperative practice if the cultural resource existing today is to remain available for future residents, visitors, and scholars. These elements of the historic district must not be compromised when considering renewable energy projects within the historic district.

This master plan recognizes potential economic and ecological benefits that renewable energy systems provide, and it facilitates renewable energy systems in the county, including within the historic district. However, commercial/utility-scale solar- and wind energy systems impose significant adverse visual effects and are incompatible with the historic environment surrounding Virginia City, The Divide, Gold Hill, American Flat, and the Virginia & Truckee Railroad corridor and should be prohibited within the historic district boundaries. Residential-scale systems may be considered under certain circumstances when they are scaled, placed, and designed as to not detract from abutting and surrounding uses and the overall historic environment.

Preserving Small-Town Character

Residents, businesses, and visitors consistently express desire to retain the small-town character of each Comstock community, and they express appetite to enhance tourism, and commercial- and mixed uses in and around downtown Virginia City and Gold Hill. There is also a general acceptance in continuing residential growth that is consistent with past patterns. Mixed-use commercial-residential development incorporating high density and compact mixed commercial-residential uses in a similar manner to surrounding conditions is encouraged in downtown areas. These land use practices result in more economic diversity to the area and also lessen economic reliance on tourism-based industries. Large-scale commercial and housing development patterns which are inconsistent with the scale of

development in the area will degrade the historical and cultural value to the area and should be avoided.

Housing

The demand for housing in the Comstock area appears to result from in-migration including retirees, seasonal employment fluctuation, and second-home ownership rather than from a natural increase of the existing population. This master plan seeks to attract a diverse permanent local population through historic urban design promoting economic development through tourism and job opportunities to support a long-term resident population.

The urbanistic design of Gold Hill and Virginia City contributes to a wide range of housing types and affordable options. The population is concentrated into a relatively small geographic area closely connected to a downtown core. Small parcels, entitlements for single- and multifamily housing including live-work housing, and integrated commercial and industrial land design provide affordable living and access to employment.

These attributes foster holistic solutions to “addressing poverty, health, and underdevelopment as well as ecology and the environment” (Cannons of Sustainable Architecture and Urbanism: A Companion to the Charter of the New Urbanism; Congress for the New Urbanism 2015) of the community for a wide population range. They promote steady growth, sustainable living environments, and economic vitality of the community.

Chapter 6 – Housing describes a stable demand trend for owner and renter units and a sufficient, but sometimes fluctuating, supply of available housing. Median rental and purchase price of housing are not significant limiting factors for affordable housing. However, demand for rental units in the area sometimes exceeds supply during the tourism season. Second-home ownership, and the substandard condition of many historic structures are limiting factors to attainable housing in the Comstock area.

Rehabilitating the abundant supply of historic multifamily and commercial-residential structures in Virginia City may bridge the supply-demand gap. Rehabilitating historic structures also enhances the overall quality of the community, making it attractive to new business and younger and more diverse families.

Making existing historic structures livable may be achieved by streamlining regulations, cooperating better with local contractors and owner-builders, and seeking assistance from agencies such as the Nevada Rural Housing Authority (NRHA) and U. S. Department of Agriculture Rural Development (USDARD) that offer homebuyer and historic building rehabilitation assistance and other programs benefiting working families.

Rehabilitating historic structures and allowing moderate new growth enhances access to housing for diverse populations while also promoting economic vitality in the community. Suburban-type growth does not conform to the historical land use patterns found in the Comstock area. Rather than serving identified population needs, large-scale suburban growth typically attracts large numbers of new residents over a short period of time, thus threatening the existing character of the community. A sustainable rate of growth for a diverse population should be encouraged by maintaining existing urbanistic design and by attracting scaled tourism and non-tourism businesses to the area.

As part of the community meetings in the summers of 2023 and 2024, several topics of conversation were raised related to housing. The topic of short-term rentals, their impact on existing housing, and the desirability of creating and maintaining a year-round community were discussed. Many short-term rentals exist within the Commercial Residential zoning district, but short-term rentals are also permissible with a special use permit in the Residential zoning district of both Virginia City and Gold Hill. Besides the immediate impact of a “tourist” type of land use in a residential area, the impact of having an empty residence except when rented for a short time period may have an impact on the community as a whole. More community discussion and research are needed to meet the goals of having a diverse housing stock within the Comstock area.

Another topic that was raised was the use of accessory dwelling units. Current zoning code allows for accessory dwelling units if specific criteria can be met, including a minimum lot size of 10,000 square feet in the Residential zoning district, and that occupancy be limited to a related family member. Further research is necessary to determine if lifting some of these requirements may increase housing production, including affordable housing, and the impacts this may have to existing single-family residential neighborhoods.

Parking And Traffic Congestion

A parking inventory and traffic congestion needs analysis for Virginia City was conducted in 1993 by Leigh, Scott, and Cleary, Inc. (Appendix D). Parking shortages and traffic congestion are described in the report as prevalent throughout the commercial core of Virginia City, and reduce the safety, convenience, and attractiveness of the town for tourists, residents, and businesses. Although the town layout has not physically changed significantly since the 1993 study, a new parking study, along with analysis of street layouts, vehicle movements, circulation, different sized vehicles and new parking opportunities is proposed to commence in 2025.

The report encourages County officials to develop a plan for traffic and parking based on its findings and recommendations. The Comstock Project (1980) referenced in the 1994 Master Plan also provided recommendations for traffic and parking management that apply today. Discussed further in Chapter 8 – Transportation, the 1993 study and the Comstock Project contain similar recommendations for traffic management and parking including, concentrating parking toward the peripheral areas of town and enhancing downtown area pedestrian corridors.

A series of meetings between Storey County and the Virginia City Tourism Commission were held in 2011 to discuss these findings and recommendations and determine their relevance to current conditions. Despite the report being relatively dated, it was determined that its findings and recommendations remain relevant and thus are considered in this master plan. The County anticipates that, with the new parking study, coordination with all applicable entities and the public will be involved in the development of the new parking study analysis.

Mining

Mining and non-mining uses on the Comstock have coexisted since the inception of Gold Hill, Virginia City, and the Comstock itself, and continue today.

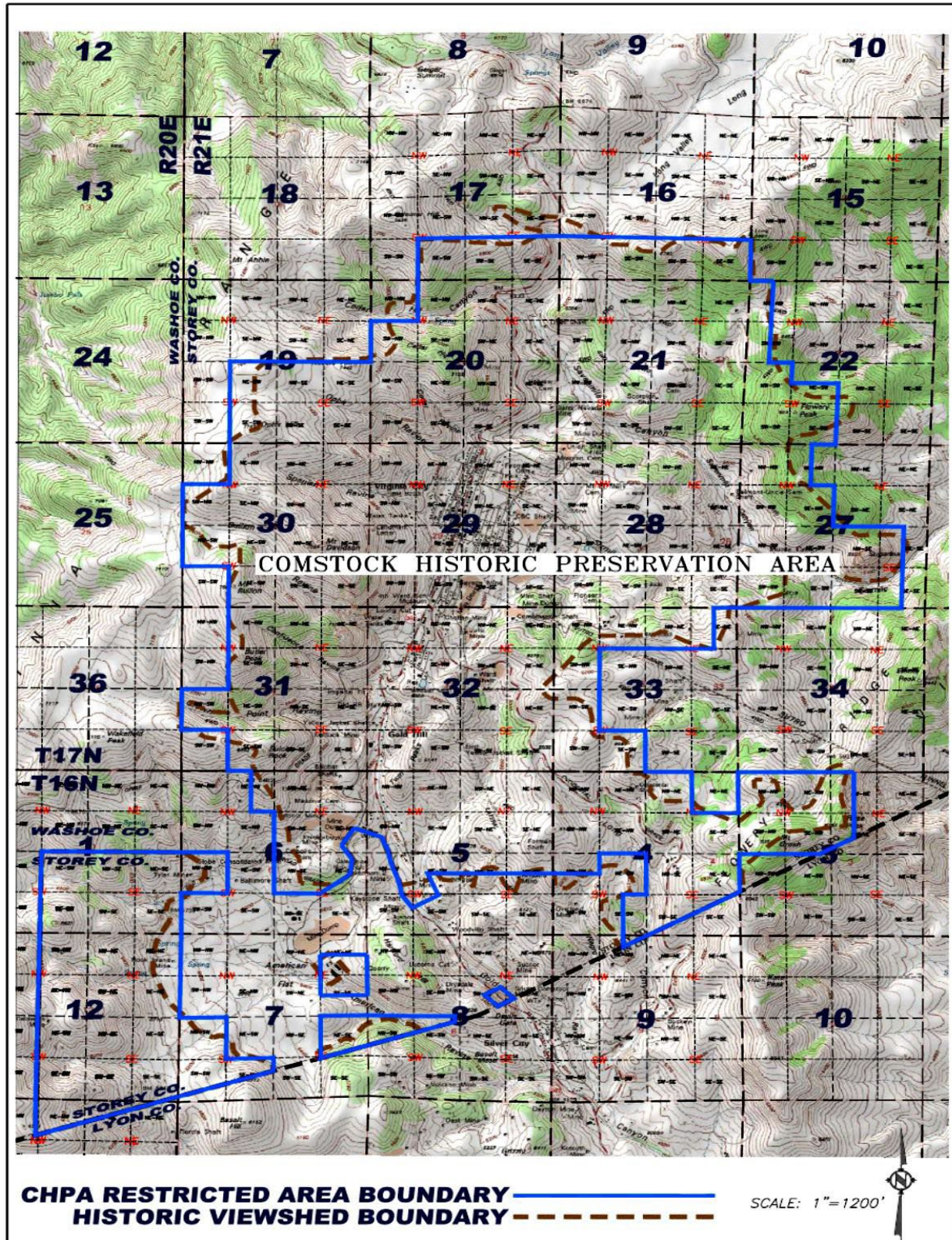
Mineral rights often supersede surface rights, large deposits of silver and other ore remain in the ground, and silver and gold continue to increase in value worldwide. Understanding mining law and the existence of mineral rights below land and homes is a challenge County officials face with other stakeholders when considering applications for mining. Because of these mining rights and economic factors influencing commodity prices, it is expected that mining will continue in the area.

Storey County should carefully assess the benefits and impacts of mining on the local community and economy and the rights that are afforded to mineral interests under federal and state law, and it should strive to balance those mining interests with the need to protect communities, cultural and historical resources, natural resources and landscapes, businesses and residents.

In 2012, the Board with recommendation by the Planning Commission ratified comprehensive and balanced mining reform in the County zoning ordinance. The regulations in effect today include a map delineating restricted areas for certain large-scale surface mining within Gold Hill and Virginia City. The map and ordinance were ratified after a lengthy series of public meetings considering mining and non-mining interests including attorneys, citizens of Storey County and neighboring Silver City (Lyon County), and various state and federal agencies.

Stakeholders from both sides of the mining use expressed to the Board, Planning Commission, and County planning staff, their firm desire for the provisions of the ordinance (see findings in Chapter 11 – Cultural & Historic Resources) and the historic area preservation map (see Figure 3.4-21). Findings detailed in Chapter 11 are considered an essential element of this master plan to be followed in future ordinance development and land use decisions affecting the Comstock area.

Chapter 11 – Cultural & Historic Resources contains extensive findings and regulations for the protection of property and preservation of cultural resources of the Virginia City National Historic Landmark. These findings should be embedded into zoning regulations and other ordinances regulating and promoting mining in the county. Significant restrictions that do not conflict with property rights and federal law should be imposed on large-scale surface mining in and around Gold Hill and Virginia City town sites, while responsible surface and underground mining methods should be encouraged through streamlining regulations and application procedures.



Source: Storey County Code Title 17

Figure 3.4-21: Comstock Historic Preservation Area, 2012

Interconnectivity

Virginia City is the Storey County seat and the center of local government and its operations. However, most of the industrial and commercial activity in the county occurs at McCarran, over an hour's drive from Virginia City. Around three-quarters of the county's residents also live outside of Virginia City and are in most cases separated from it by expansive distance and topography.

Connecting Lockwood and other northern communities to Virginia City will become increasingly important as commercial growth and other activity continue to occur in other parts of the county. County officials need to plan for means by which County services will be provided to residents and employees outside of Virginia City into the foreseeable future.

Chapter 8 – Transportation discusses alternative routes connecting different areas of the county that were discussed during master plan workshops. Connecting Lockwood/Mustang and Geiger Grade via a direct link between Long Valley Road and Mustang Road may be feasible; however, the cost-benefit ratio needs to be studied to determine feasibility. Incorporating a third link between this route and McCarran, somewhere toward the center of the county, was also discussed. Also considered was a connection between McCarran and Virginia City via USA Parkway to Highway 50 and Six Mile Canyon Road, or a potential similar connection, but bypassing Highway 50 through the Mark Twain-Flowery Range Area Plan. Other options were discussed but were found to be cost-prohibitive or strongly opposed by Highlands and Lockwood residents. These options include an alignment between Geiger Grade and Lockwood using Lousetown Road and Canyon Way. This route was strongly opposed by Highlands and Lockwood residents due to traffic and other activity that would be concentrated through the approximate center of both residential communities. A direct northerly connection between McCarran and Six Mile Canyon was also considered; however, local topography appears to make such an alignment cost-prohibitive.

Interconnectivity was a topic of conversation at the town hall meetings associated with the Master Plan update during the summers of 2023 and 2024. In general, all communities have the same opinion as the original master plan documents. Each community desires to retain their quality of life and not to create opportunities for large traffic volumes to pass through their communities.

The Nevada Department of Transportation is currently conducting a study to determine if an east/west connector road, connecting the South Meadows area in Reno with USA Parkway, would be feasible. The Nevada Department of Transportation is working with private property owners to evaluate a potential route along with construction costs and traffic volumes to determine if such a roadway would meet Nevada Department of Transportation needs for traffic circulation in the Northern Nevada area.

Resolving Storey County Clouded Title Issues

In 1876, the General Land Office Survey of the Virginia City and Gold Hill town sites were approved. However, subsequent requisite actions were never completed and federal patent to the land was never issued. Without issuance of such patent, proper ownership of surface rights within the town sites were in question for many years and created clouded title on nearly 75 percent of residential and commercial parcels in these communities. Because of clouded title conditions, land owners and prospective land owners commonly encountered challenges securing financing, insurance, and certain entitlements for the affected land.

Since the adoption of the 2016 Master Plan, the 2018 Public Law 113.291 (known as the “Bureau of Land Management Lands Act” or “Lands Act”), passed by the United States Congress, authorized the transfer of land from the U.S Bureau of Land Management to Storey County. This act not only cleared the clouded title concerns of properties within the Comstock area, but it also transferred some vacant land previously under the management of the Bureau of Land Management to Storey County. This additional land forms a perimeter around the Comstock area and is anticipated to be utilized for public service uses. Some of the land at the east end of Virginia City is proposed to be transferred to the Storey County School District to allow for the District to relocate the elementary and middle schools and create one school campus. Other areas on the perimeter are anticipated to be utilized for flood control projects and similar public works projects (Figure 3.4-22).

A second Lands Act Bill has been submitted to the United States Congress to acquire some additional land in Storey County. The second Lands Act Bill is requesting additional land near the existing high school to allow for athletic fields, a cemetery area in Gold Hill, and a third area adjacent to the Mark Twain subdivision to clear up some legal description issues and to potentially allow for a public works flood control project.

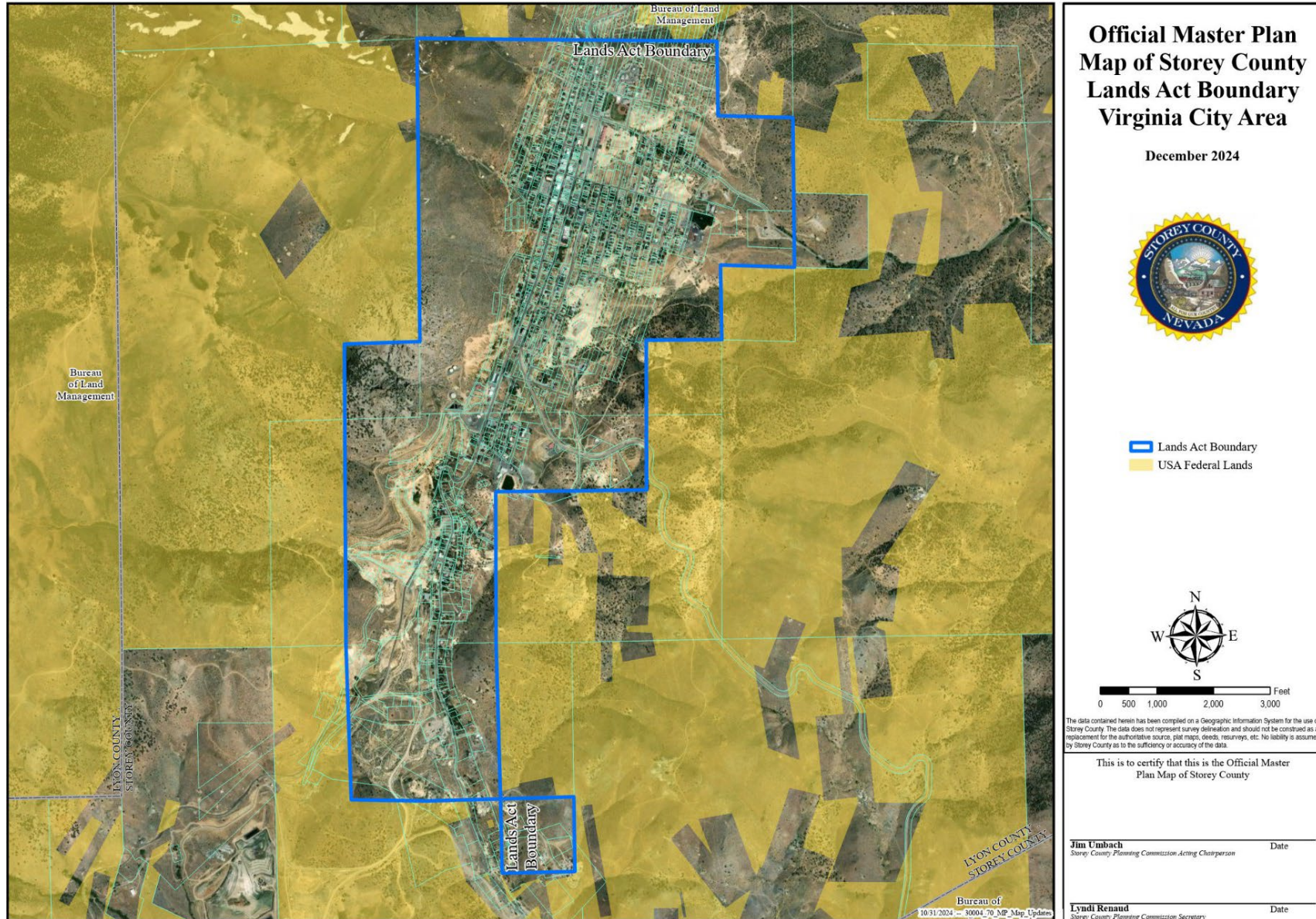


Figure 3.4-22: Lands Act Boundary – Virginia City Area

Land Plat Challenges

Fragmented land throughout much of Gold Hill and Virginia City appears to have been haphazardly located according to squatters' code of first-come first-served during the Comstock Lode (see Figure 3.4-23). To date, land plats are riddled with inaccuracies and overlapping ownership, and often do not conform to land patents and known township boundaries. Determining the proper ownership of surface and mineral rights is complex and represents a significant challenge for property owners, businesses, county officials, and federal land management agencies. County officials continue to cooperate with land owners and surveyors to resolve mapping inconsistencies on a case-by-case basis mostly initiated by private property interests. County officials should continue to explore options toward resolving this matter community-wide.



Source: Storey County Assessor's Office 2015

Figure 3.4-23: Gold Hill Plat Map Confirming Topographic, Built Environment, and other Ground Conditions

Divide Reservoir – Multiple Uses

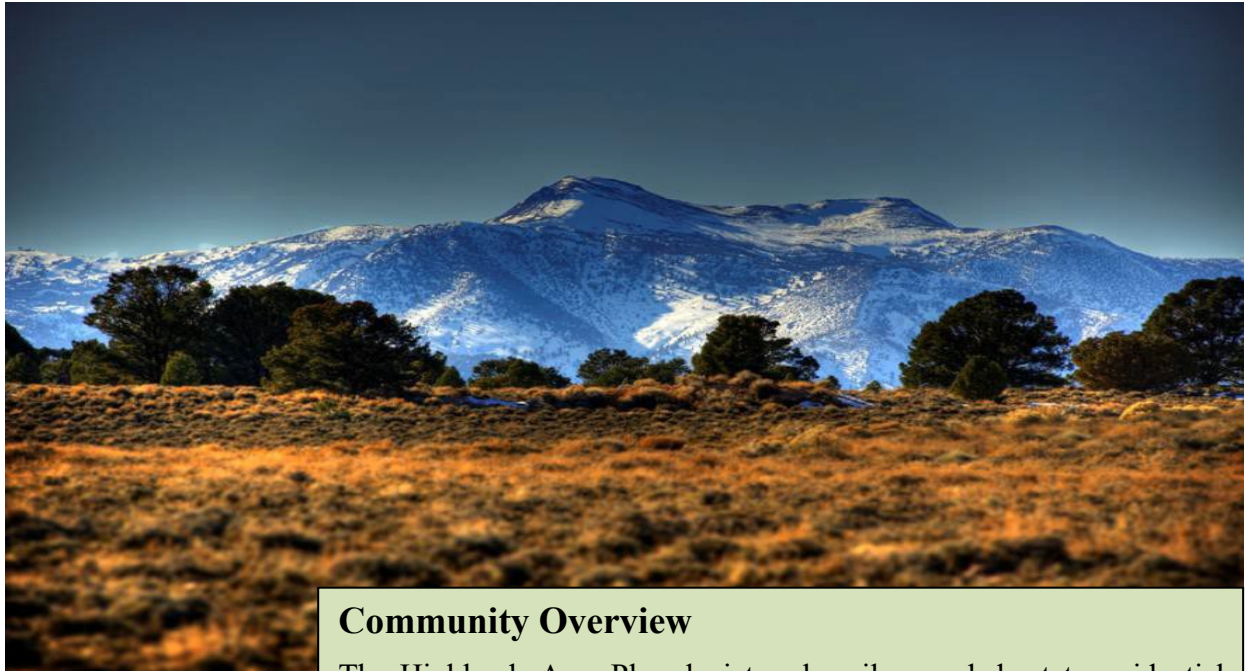
Divide Reservoir, at The Divide approximately two miles south of Virginia City, was rehabilitated in 2014 and its water holding capacity was significantly expanded (Figure 3.4-24). The reservoir's principal use remains a secondary source of water for fire suppression and other non-potable uses. However, the County has considered developing the waterbody and its surrounding grounds to accommodate public recreation. It is recommended that County officials continue exploring the costs, risks, and feasibility of using this water feature for recreation and other public uses.



Source: Google 2024 (Aerial Photo) and Storey County Public Works Department 2015

Figure 3.4-24: The Restored Divide Reservoir, 2015

3.4.3 Highlands Area Plan



Community Overview

The Highlands Area Plan depicts a heavily wooded estate residential community composed mostly of custom site-built homes on large parcels surrounded by remote undeveloped lands. The area is located along the western county boundary approximately three miles north of Virginia City. Its residents appreciate the community's rural lifestyle while being in relatively close proximity to conveniences and employment opportunity provided by Reno and Sparks.

3.4.3.1 Introduction

The Highlands area is a rural residential subdivision approximately three miles north of Virginia City. The area covers approximately 66 square miles of steep and irregular terrain, heavily wooded with pinon and juniper. The Highlands area consists of the Virginia City Highlands (one-acre parcels), Highland Ranches (ten-acre parcels), and the Virginia Ranches (40-acre parcels). This area is solely composed of custom single-family detached residences. There are no commercial uses in this area.

3.4.3.2 Existing and Future Land Uses

The Highlands is comprised of custom site-built single-family residences on large parcels. This pattern is expected to continue in this area for the foreseeable future.

Public services are limited in the Highlands, and all residences require private domestic wells and septic systems. Groundwater resources in this area are limited and highly sensitive to local drought conditions. It is unlikely that long-range growth or build-out of this residential community will occur without securing and developing an alternative source of water for the area.

Historically, cellular and land-line telephone, internet, broadband, and other telecommunication services in this area were limited and unreliable in places where they were available. Service providers have recognized the lack of services in this area and are working to make improvements. Today, 5G or 4G LTE cellular service is available to most of the Highlands from major providers. Nevada Energy upgraded electric service to the area in 2019 to a three-phase distribution line, providing 67 percent more capacity (NV Energy 2024).

There are no commercial uses in the Highlands. In the early 1990s and throughout master plan workshops in 2015, the community expressed to the Board and Planning Commission its strong opposition to a proposed convenience store or other commercial uses in and around the Highlands. Residents cited potential degradation of the existing rural lifestyle and misalignment with area character as the primary reasons for their opposition to the use. With exception of a minority of local residents, this position appeared to be shared by both long-time area residents and newcomers. In addition, water availability may further limit residential development on vacant parcels in the Highlands (see discussion in this section under “Key Issues”). The topic of commercial land uses was again raised at community meetings during the summers of 2023 and 2024, however the opinion of the residents has not changed since the 2016 Master Plan. Commercial land uses within the Highlands area are opposed by the residents. Accordingly, it should be anticipated that the Highlands area will remain exclusively a rural- residential estate community absent of any retail or other commercial type uses. Figure 3.4-25 depicts the Highlands Area Planning Area.

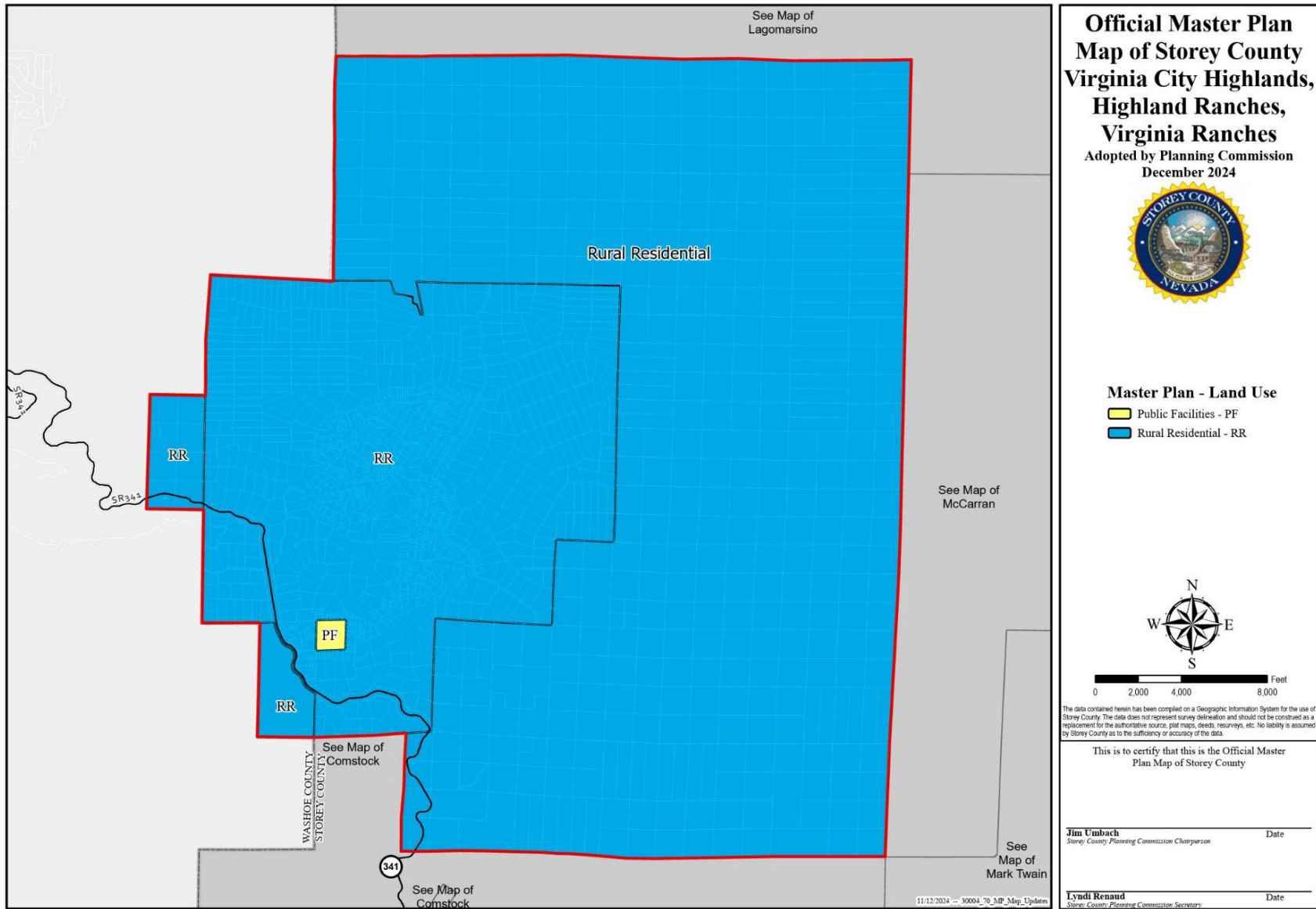


Figure 3.4-25: Master Plan Highlands Planning Area Map

3.4.3.3 Key Issues

Preservation of Rural Character

The rural character of the Highlands is highly sensitive to potential impacts caused by surrounding land uses. When reviewing future applications for development near the Highlands, the County should consider the potential adverse impacts that such a development may have on this community.

In 2008, an application was submitted to the County for a master plan amendment and zone change allowing a planned unit development approximately two miles north of the Highlands. The proposal included approximately 17,000 homes resulting in the potential for approximately 42,000 new residents.

The application for master plan amendment was denied by the Board of Commissioners following recommendation for denial by the Planning Commission. Findings supporting the denial included lack of conformance with the purpose and intent of the master plan (1994), inadequate availability of water for the proposed development, potential degradation of existing water resources for adjacent communities including the Highlands, and the potential for substantial adverse impacts to the rural character and lifestyle currently enjoyed by the Highlands residents.

The denial was upheld in the First District Court of Nevada after the developer litigated the County's decision, and a subsequent settlement between the County and the developer in the Nevada Supreme Court resulted in the allowance of various industrial uses on the land, similar to what was allowed already on the land under its previous master plan and zoning entitlements (see Lagomarsino Area Plan). Other development proposals in the area are expected to be presented in the future.

This master plan recognizes that residents in the Highlands highly value rural living with minimal traffic, dark skies, safety, freedom, and general seclusion from urban and suburban environments.

North-South Roadway Interconnection

The importance of connecting Lockwood, Mustang, McCarran, and other northern communities in the county to Virginia City will become increasingly important as commercial and population growth occurs in the northern parts of the county.

Chapter 8 – Transportation discusses alternative routes connecting different areas of the county that were discussed during the master plan workshops. Connecting Lockwood/Mustang and Geiger Grade via a direct link between Long Valley Road and Mustang Road may be feasible; however, the cost-benefit ratio needs to be studied to determine feasibility. Incorporating a third link between this route and McCarran, somewhere toward the center of the county, was also discussed. Also considered was a connection between McCarran and Virginia City via USA Parkway to Highway 50 and Six Mile Canyon Road, or a potential similar connection, but bypassing Highway 50 through the Mark Twain-Flowery Range Area Plan. Other options were also discussed but were found to be cost-prohibitive or strongly opposed by county residents. These other options for routes include an alignment between Geiger Grade and Lockwood using Lousetown Road and Canyon Way. This route was strongly opposed by Highlands and Lockwood residents due to traffic and other activity that would be concentrated through the approximate center of both residential communities. A direct northerly

connection between McCarran and Six Mile Canyon was also considered; however, local topography appears to make such an alignment cost-prohibitive. These transportation routes were discussed during the summer of 2023 and 2024 meetings in the Highlands, and the residents maintained their opposition to these roadways, including opposition to exploring secondary emergency access opportunities.

While certain regional interconnection may become necessary in the future, the County should work closely with area residents to determine alternatives that are consistent with this master plan and ensure that unintended negative consequences are prevented. The County should also consider future population and other influential factors of Painted Rock before making substantial capital investment in directly connecting Virginia City with the north end of the county.

East-West Roadway Interconnection

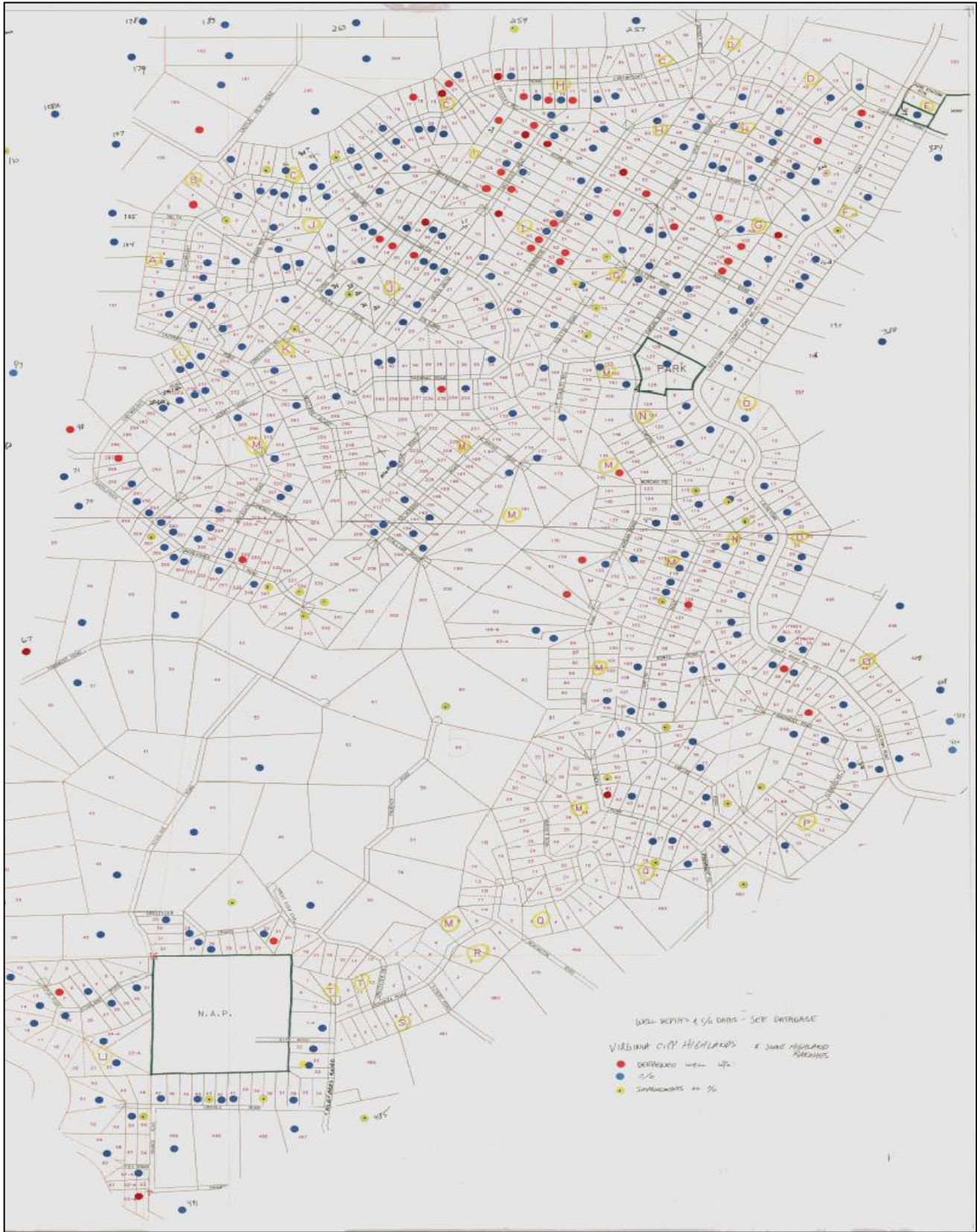
Significant discussion occurred during the master plan workshops on whether an east-west connecting roadway north of the Highlands would benefit the region. However, concerns were brought forth that such a roadway may encourage residential sprawl from Washoe County that may threaten the rural lifestyle of the Highlands and conflict with industrial uses and entitlements existing north of the Highlands (see Lagomarsino Area Plan). Concerns were also discussed about the negative impacts that such a route could have on Canyon Way and the Lockwood community.

As stated in the Comstock section of this chapter, the Nevada Department of Transportation is currently conducting a study to determine if an east/west connector road, connecting the South Meadows area in Reno with USA Parkway, would be feasible. At this time, Storey County is not a proponent for this roadway but is engaged in regional planning discussions to ensure that the needs of the County and the Highlands neighborhood are included in the alignment and design standards discussions as they occur. The Nevada Department of Transportation is working with private property owners to evaluate a potential route along with construction costs and traffic volumes to determine if such a roadway would meet Nevada Department of Transportation needs for traffic circulation in the Northern Nevada area.

Water Availability

Water availability is the foremost concern in the Highlands. Residents obtain water via private domestic wells. Many of these wells often produce unreliable or inadequate flows, or iron-rich water requiring costly filtration treatment. In 2018, the United States Geological Survey (USGS) began an investigation in the area due to declining groundwater levels. The study, which included observation of 63 wells, concluded in 2024. Of the 728 domestic wells in the Highlands, approximately 114 (16 percent) have either been deepened or replaced. From 2019 through 2023 during a period of drought, average groundwater levels dropped significantly. However, water levels rebounded during the winters of 2023 and 2024 when there was above average precipitation. Large changes in water levels generally indicate limited aquifer storage. Final results of the groundwater investigation are due to be released in 2025. Regardless of what the results indicate, the Highlands will likely continue to struggle with the issue of water supply and quality to serve future development given the region's propensity for longer periods of drought. Storey County is working with the United States Geological Survey to continue monitoring strategic well locations within the Highlands to have information to make informed decisions for future development.

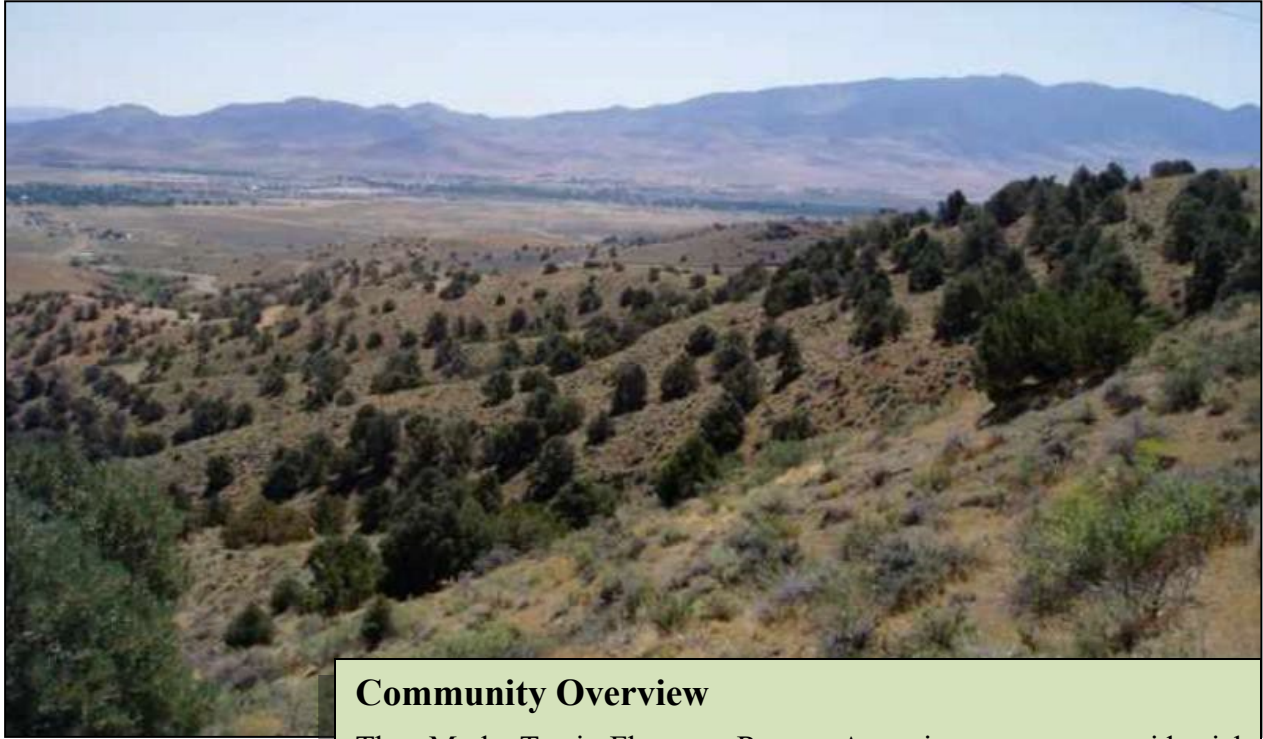
Future water planning should consider the benefits and limitations of forming a general improvement district to acquire water and develop local infrastructure to manage its distribution. The 2023 Storey County Water Resource Plan estimates that providing public water to existing residents, as well as future build-out of the Highlands, would cost over \$100 million (see Appendix B). The plan should also consider other preventative measures including sharing services with outside jurisdictions, reducing housing density through regulation and incentives, and providing for transfer of development rights to parts of the county where population growth may be more appropriate. Groundwater well information from the Highlands area is presented in Figure 3.4-26.



Source: Lydia Hammack, Virginia City Highlands Property Owners Association 2011

Figure 3.4-26: Highlands Well Information

3.4.4 Mark Twain-Flowery Range Area Plan



Community Overview

The Mark Twain-Flowery Range Area is an estate residential community surrounded by remote undeveloped lands near the southern boundary of Storey County along the foothills of the Flowery Range. The rural community abuts neighboring Lyon County where rapid suburban growth is transforming the general area into a bedroom community of Carson City, and Reno and Sparks.

3.4.4.1 Introduction

Located approximately six miles due east of Virginia City, Mark Twain-Flowery Range Area Plan is a residential community of mobile and manufactured homes intermixed with site-built structures. The community and its outlying areas encompass most of the gently sloped alluvial areas at the base of the Flowery Range. Development is almost exclusively limited to the Mark Twain Estates subdivision, which accounts for about one-quarter of this planning area. Non-residential uses in Mark Twain-Flowery Range include a community center and public park at the Mark Twain Estates subdivision and the Basalite basalt quarry located approximately two miles northeast of the estate subdivision. The remaining land in Mark Twain-Flowery Range is mostly undeveloped.

The 2016 Master Plan identifies the Mark Twain neighborhood and areas to the north and east of the neighborhood as “Mark Twain.” This updated master plan has added the identification as the Mark Twain-Flowery Range so as to distinguish between different locations within the same overall area. In general, the Flowery Range area is the foothills of the Flowery Range, located east of the Mark Twain Estates subdivision and southeast of the Basalite mining location. The future ideas and goals for this area differ from the established Mark Twain neighborhood and the distinction between the two is the reason for the name change.

3.4.4.2 Existing and Future Land Uses

Mark Twain Estates is composed of a mixture of mobile, manufactured, and site-built residences on large parcels generally ranging from one to five acres. There are a few large lot parcels developed with a single-family residence located to the north and west of the subdivision, however, most of the development in this Plan Area is concentrated within the confines of the approximately 360-lot subdivision. The Basalite Mine is located to the northeast of the subdivision. This mine is active, with access across Bureau of Land Management Land and Lyon County land to Highway 50. Land surrounding the mine is mostly vacant.

Public services are limited in Mark Twain-Flowery Range, and all residences require private domestic wells and septic systems. Groundwater resources in this area are highly sensitive to drought conditions. Local groundwater availability may be impacted by rapid suburban growth occurring in adjacent Lyon County; however, this hypothesis needs to be further studied to determine a causal relationship or lack thereof.

There are no commercial uses in Mark Twain-Flowery Range except for the quarry at the northern base of the Flowery Range. However, commercial development has expanded rapidly over the past two decades in adjacent Lyon County along the Highway 50 corridor, with fueling stations, retail markets, casinos, and other commercial centers emerging just a few miles to the south. Interest in the region has been expressed to develop a public services facility and secondary school near the Mark Twain Estates but serving the greater Mark Twain-Dayton area. The potential for facilitating local and regional emergency services, law enforcement, and public works facilities, perhaps co-located with a regional school providing grades K-12 and post-secondary scholastic and vocational education, should be discussed.

Protecting area rural lifestyle, safety, and water resources, and mitigating known flooding conditions in the adjacent Mark Twain Estates should be considered of foremost importance when considering

new development in this area.

A major power transmission substation (NV Energy’s Blackhawk substation) was approved by the Board with recommendation by the Planning Commission in 2009. The substation was never developed. NV Energy is maintaining the site for potential future use to accommodate future growth. This area of the proposed substation is also within a designated utility corridor (see Chapter 9 – Public Services & Facilities), in which special use permitting is not required for power transmission infrastructure.

Residential development in abutting Lyon County will likely expand toward Storey County’s Mark Twain-Flowery Range community. Pressure may occur to permit suburban sprawl to expand into the Mark Twain-Flowery Range Area as the region grows in population. It should be noted that the Board, with recommendation by the Planning Commission, allowed Basalite Mine to rezone the land immediately surrounding its quarry from Estate to Forestry and Heavy Industrial. The rezone was consistent with the 1994 Master Plan by further restricting potential residential growth in Mark Twain-Flowery Range in order to lessen the likelihood for residential encroachment into areas adjacent to the mine. The County approved an updated special use permit for the Basalite Mine in 2021 to increase the annual quantity of material mined from the site and to allow new processing equipment and storage silos for the Basalite Mine. The new special use permit is valid for 20 years. The County continues to oppose residential land uses near the mine while it is in active operation. Once mining activities are complete and the site has been reclaimed, residential activities may be appropriate near the area of the mine in the long-term. While the mine is active, there should be a transition area of other land uses to limit residential land uses in close proximity to the mine (Figure 3-4-27).



Source: Storey County Planning Department, 2015

Figure 3.4-27: Basalite Mine in the distance, and the Mark Twain Estates in the foreground

In the past, the residents of the Mark Twain Estates strongly opposed suburban residential patterns in the area. Residents generally supported very low density rural residential (e.g., 40-acre or larger parcels) uses abutting and near the Mark Twain Estates. Residents also agreed that certain commercial and light industrial uses east and north of the Mark Twain Estates and south of the quarry may complement the area in Storey and Lyon Counties by providing local services and employment opportunities. Upstream mitigation of area flash-flooding conditions in the Mark Twain Estates may also be a benefit of well-situated and designed development. The Dayton Valley Area Drainage Master Plan recommends improvements to mitigate flooding in the Mark Twain-Flowery Range drainage system with the highest priority being Gold Pan Basin and storm drain.

County officials should consider special light industrial zoning for transition areas designated as industrial-professional. The zoning should contain design standards that create complementary interface between abutting residential and professional/light industrial uses and zoning and be utilized as a buffer between residential land uses and mining activities. The standards should lessen impacts between the abutting uses through:

- Distances and buffering
- Landscaping, screening, noise abatement, and outdoor lighting standards
- Vehicle access, egress, parking, and on-site circulation
- Property management through owners' associations, Covenants, Conditions, and Restrictions, etc.
- Placement of buildings and structures such as to reduce direct visual impacts to area residences, and cause blending with the surrounding natural environment, including backdrop mountain vistas.

As industrial activity grows in Northern Nevada, the need for housing is also growing. Housing availability in Storey County has been limited in the past due to a variety of reasons. Access to water resources and land that is easily suitable for construction are obstacles that are challenging to overcome. Storey County has had no major housing developer take interest in developing land within the county beyond the initial attempts at the Painted Rock portion of the county.

With development in Lyon County approaching the Storey County/Lyon County boundary, opportunity for residential development may present itself at the Flowery Range foothills. This was discussed at the Mark Twain meeting in the summer of 2024 with the residents of the Mark Twain Estates. The residents acknowledged the pressures for future residential development but also strongly opposed any development that would impact their quality of life within the existing subdivision.

The Master Plan land use designation map has been revised to identify transition areas from Resources to Residential Planned Unit Developments. As part of the transition designation, buffering of land uses to preserve the Mark Twain Estates quality of life and Basalite mining activities is included in the goals and policies of this master plan chapter. The goals are to allow for additional residential development to occur while preserving the existing characteristics of the Mark Twain Estates. This may mean limiting access to the neighborhood from the surrounding area to reduce pass through traffic so that the privacy of the Mark Twain Estates residents is preserved.

Land subdivision applications should also include these elements in the tentative map approval process,

and review for tentative maps should be by the community most impacted. Valid evidence must be presented at the application stage indicating sufficient local water resources to support the development.

Residential encroachment into the quarry area should be prohibited. This will minimize future use compatibility conflicts, ensure the long-term economic vitality of the mine, and foster a safe, healthy, and sustainable local environment.

The Mark Twain-Flowery Range Area Plan master plan map is provided in Figure 3.4-28.

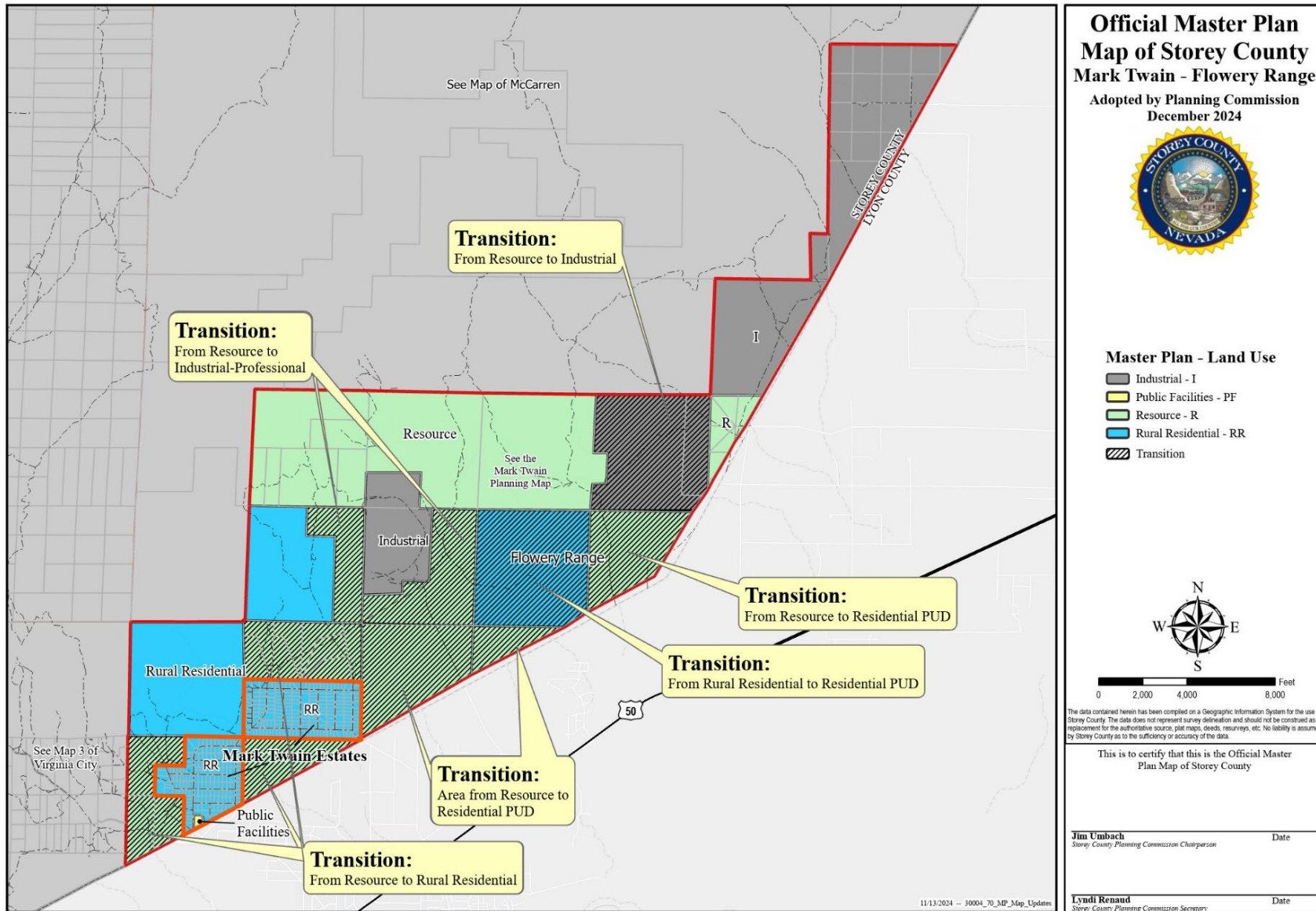


Figure 3.4-28: Master Plan Mark Twain-Flowery Range Area Plan Map

3.4.4.3 Key Issues

Preservation of Rural Character

Maintaining the rural character of the Mark Twain Estates should be of foremost importance when considering the design and placement of new development in the greater area. Further subdividing parcels or increasing density in the Mark Twain Estates should be prohibited, and lot consolidations should be encouraged.

The rural character of the Mark Twain Estates is also highly sensitive to surrounding uses. When reviewing future applications for development in the Mark Twain-Flowery Range area and adjacent to the Mark Twain Estates, the County should closely evaluate the potential adverse impacts to this community and require mitigation through sufficient buffering, density transitioning, development design, and other site-specific means by which to maintain the rural character of the Mark Twain Estates.

Residents in the Mark Twain Estates expressed the importance of buffering to incorporate general open space, regional drainage improvements, wildlife corridors, parks and passive recreation, cemeteries, and other uses that will substantially separate existing residences from new development. In addition to buffering, residents expressed the importance of density transitioning, where uses closest to the Mark Twain Estates would exhibit similar or less density than the existing neighborhood, followed by successive reduction in density (e.g., five-acre parcels, followed by 2.5-acre parcels, followed by 1.25-acre parcels, etc.).

In 2008, an application was submitted to the County for a master plan amendment and zone change allowing a planned unit development approximately two miles north of the Highlands (see Highlands plan). The proposal included approximately 17,000 homes resulting in 42,000 potential new residents to the county.

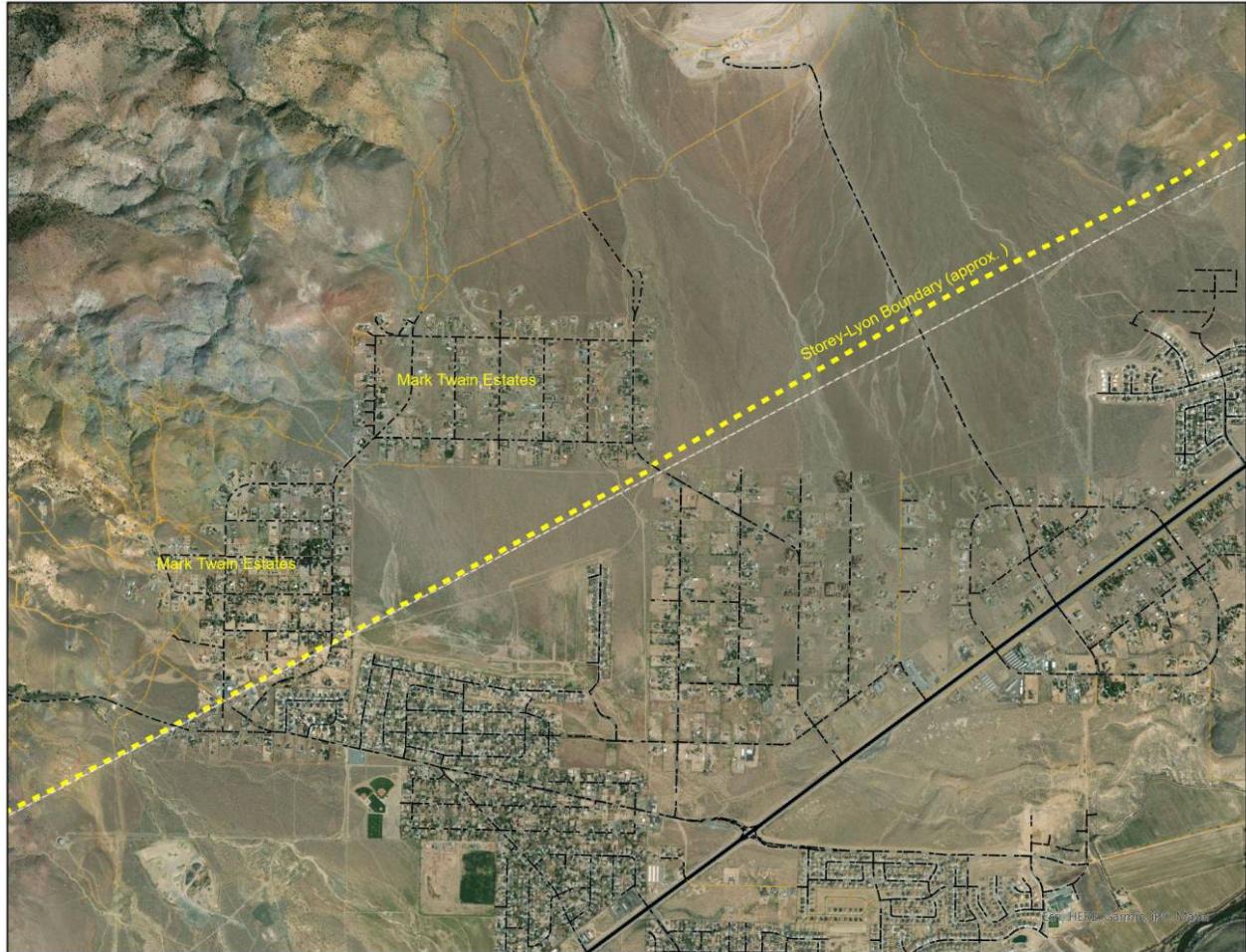
The application for master plan amendment was denied by the Board following recommendation for denial by the Planning Commission. Findings supporting the denial included lack of conformance with the purpose and intent of the master plan (1994), inadequate availability of water for the proposed development, potential degradation of existing water resources for adjacent communities, and the potential for substantial adverse impacts to the rural character and lifestyle currently enjoyed by area residents.

The denial was upheld in the First District Court of Nevada after the developer challenged the County's decision, and a subsequent settlement between the County and the developer in the Nevada Supreme Court resulted in the allowance of various industrial uses on the land, similarly to what was allowed already on the land under its previous master plan and zoning designations (see Lagomarsino Area Plan).

The County is advised to reference this case and its findings of fact when evaluating the compatibility of future large-scale developments in the Mark Twain-Flowery Range planning area.

This master plan recognizes residents in Mark Twain Estates highly value their rural lifestyle with minimal traffic, dark skies, safety, and freedom offered by the area. Proposals to develop land with

residential, industrial, or commercial uses should consider preserving or enhancing the existing rural residential environment and protecting the long-term well-being of the Basalite Mine. Figure 3.4-29 shows the relatively rural character in the Mark Twain-Flowery Range Area Plan as compared to the area southeast, in adjacent Lyon County.



Source: Google Earth

Figure 3.4-29: Suburban Sprawl in Adjacent Lyon County (south of the illustrated county line) in Contrast to the Rural Character of the Mark Twain-Flowery Range Area Plan in Storey County

Water Availability

Water availability is a foremost concern in Mark Twain-Flowery Range, where residents obtain water via private domestic wells. Many of these wells produce unreliable or inadequate flows. In 2023, there were 333 wells in Mark Twain Estates pumping 333 acre-feet ranging from about 80 to 700 feet below the surface with 45 remaining vacant parcels, each of which under existing conditions will be served by a private domestic well when developed. There are an additional 53 non-residential vacant parcels in Mark Twain-Flowery Range. Wells have gone dry when the well depth is 170 feet or less, and groundwater availability is very restricted, which has become increasingly apparent during the last 20 years. According to the Water Resources Plan, approximately \$28 million of improvements to the

County Water System would be necessary to serve Mark Twain-Flowery Range existing residents. The groundwater in Mark Twain-Flowery Range is influenced by the Carson River (Dayton Valley outside of Storey County), which is greatly influenced by drought conditions. Options to provide water for existing and growing demand in Mark Twain-Flowery Range are limited but might include a community water system or changing the master plan assumed land uses to restrict future development. The County is working with the Carson Water Subconservancy District and Lyon County to implement the projects in the Dayton Valley Drainage Area Master Plan.

Localized Flash Flooding

The Mark Twain Estates is identified as one of the more flood-prone areas in the county. This is due to the grid-pattern type development built with no consideration to local topography or floodways. Local flooding conditions are exacerbated by limited capacity of existing infrastructure and limited vegetation. The basin including the Mark Twain Estates has numerous paved residential roads which provide access to approximately 333 homes. Area residents experience reoccurring issues of flooding at roadway crossings as well as property damage from flooded ditches during storm events. Development of areas surrounding the Mark Twain Estates may provide opportunities for properly designed upstream stormwater detention and diversion. The County should require adequate flood mitigation with approval of land subdivisions and developments north and west of the Mark Twain Estates.

The County should also educate and work closely with property owners of the Mark Twain Estates seeking building permits for dwellings and accessory structures in known flood areas. Continued work with federal representatives on the potential transfer of roughly 40 acres of federal land at the approximate northwest corner of the Mark Twain Estates should also continue for the facilitation of stormwater detention. Planning and potential mitigation for localized flooding is discussed further in Chapter 9 – Public Services & Facilities.

3.4.5 Lockwood-Mustang Area Plan



Community Overview

The Lockwood-Mustang Area is a mixed-use community built partially along the south banks of the Truckee River on the far north end of Storey County. It includes the community of Lockwood, a mixed-use community dominated by single-family residences, as well as supporting commercial and public uses. The area also includes Mustang, an emerging industrial center serving northern Nevada, which complements the adjacent Lockwood community.

3.4.5.1 Introduction

Lockwood is six miles east of Sparks at the base of Lagomarsino Canyon along the south bank of the Truckee River. This approximately two-square-mile area is the most populated community in the northern part of Storey County and is composed of a mixture of residential, commercial, light-industrial, and agricultural uses. Interstate 80 from Sparks or Fernley serves as the primary access to Lockwood, and Canyon Way connects Lockwood to the Interstate. Lockwood is west of adjacent Mustang, an emerging industrial area that serves the northern Nevada region, and over time may become more significant to serving the Lockwood community.

3.4.5.2 Existing and Future Land Uses

Lockwood

Existing Uses

Lockwood is the principal population center in the northern end of the county with approximately 1,333 residents (according to the Assessor's Office estimate for 2020), nearly one-third of the county's total population. The community includes Rainbow Bend, the county's only existing residential planned-unit-development, the Lockwood Community Corporation (formerly the Lockwood Mobile Home Park), and several other single-family residences located around its periphery. Detached site-built structures, mobile homes, and manufactured homes are intermingled in many places. There are currently no multi-family or single-family attached (e.g., townhouses) uses in this community.

Lockwood is an emerging mixed-use community. Currently, there is one convenience market and several small-scale light industrial uses intermixed with public services uses, including a community and senior citizens center, a full-time staffed fire station, and a sheriff's substation. The Rainbow Bend subdivision includes a recreation and community center, with tennis/basketball courts and exercise and indoor swimming facilities. However, these facilities are owned by the Rainbow Bend homeowners association and are not available to residents outside of Rainbow Bend.

Hillside Elementary School provides public education through the fifth grade to students of Lockwood and the other northern communities of the county. Sixth through twelfth graders attend public school in Virginia City or receive a variance to attend school in the nearby Washoe County School District. Figure 3.4-30 shows Lockwood's Louise Peri Park which also serves as playground, recreation, and sports facilities for elementary school students.



Source: Storey County School District 2015

Figure 3.4-30: Louise Peri Park, Shared by Storey County School District

Potential Future Growth

Commercial and light-industrial uses in Lockwood have steadily increased over the past 20 years, and this pattern is expected to continue. Additionally, County leaders should consider the steady growth of industrial uses in nearby Mustang as this trend will likely affect character and growth patterns in Lockwood. Housing growth has been minimal in the area since completion of the Rainbow Bend planned unit development in 2005; however, increased industrial and commercial activity in the area may result in proposals for new homes.

Commercial Patterns

Commercial activity is principally concentrated within the northwest area of Lockwood along Canyon Way and Menzes Way including a convenience market, small-scale manufacturing and/or assembly businesses, office spaces, self-storage, and indoor and outdoor contractor equipment storage facilities. These use types are expected to persist in this part of Lockwood; however, because the area is largely built-out and constrained by the Truckee River and area topography, significant expansion of these use types is likely to occur elsewhere in Lockwood.

For nearly a half-century, approximately 0.5 square miles of land beyond the west terminus of Avenue of the Colors has been used for industrial purposes more intense than those nearer to Canyon Way. This use type is expected to continue into the foreseeable future, and the potential for significant growth of the associated production uses may occur. However, challenges to commercial expansion in this general area include local geographical constraints and limited logistical capacity of Canyon Way and the nearest Interstate 80 interchange.

In 2015, the Board with recommendation by the Planning Commission approved a zone change for approximately 240 acres of land immediately east of Rainbow Bend. The decision changed the zone

of the subject land from agriculture to light-industrial, providing the applicant-developer entitlement to build an industrial park complete with commercial, professional-office, and light manufacturing uses. Ideally located within approximate walking distance of Lockwood, this small commercial center may provide opportunity for skilled employment to local residents.

Proposals for commercial, industrial-professional, and other similar zoning may be considered if the uses allowed and their configuration are compatible with the adjacent residential community, and when appropriate buffering is provided. Heavy industrial and similar intensity zoning and uses are not appropriate for this area and zoning facilitating the more intense uses is discouraged.

Despite its accessibility to Lockwood via Peri Ranch Road, the County should implement policies, design standards, or other measures to ensure this area is principally accessed from Mustang Road and the associated Interstate 80 interchange, thereby minimizing traffic and associated impacts to the Lockwood community. This land is also otherwise ideally situated for potential future expansion and integration into the east Mustang industrial area. The capacity of the Mustang interchange needs to be further evaluated as growth occurs in this area.

Approximately 14 acres between this light-industrial zoned land and the Rainbow Bend residential community remains in agricultural zoning and use. This area should be considered for future agricultural uses or other uses, such as additional residential uses, that effectively buffer the Rainbow Bend community from new industrial and commercial uses occurring to its east. Compatibility of new uses with the abutting residential area should be strongly considered in the review process for future proposed zoning and uses for this land.

Residential Patterns

No significant housing growth has occurred in Lockwood since the Rainbow Bend planned unit development was completed in 2005. However, proposals for new home construction in Lockwood may increase with population expansion occurring in nearby Sparks and Washoe County, industrial expansion taking place at McCarran and the Tahoe-Reno Industrial Center, and increased commercial and logistical significance emerging along the Interstate 80 corridor.

Approximately 10 acres of vacant land in Washoe County (see Figure 3.4-31), abutting the Truckee River immediately north of Lockwood and Rainbow Bend, may be ideally suited for residential development if the land were to be transferred to Storey County. Lockwood residents expressed desire to planning staff for the County to consider ways the land may be transferred from Washoe County to Storey County, and the community generally supported residential uses of the land over industrial or commercial use. Storey County officials are currently working with Washoe County and the subject landowners to potentially submit a bill in the 2025 Nevada Legislature enabling the transfer of the land to Storey County to be used for this purpose. This topic is further discussed under the Key Issues, Flooding section for the Lockwood-Mustang Area Plan.



Source: Storey County Planning Department 2015

Figure 3.4-31: Lockwood Northern Boundary at the Truckee River

Growth Constraints

The potential for future commercial and residential growth in Lockwood is constrained by steep topography of the Virginia Range to the south and the Truckee River to the north. Canyon Way from Interstate 80 serves as the area's primary access. However, the road and the interchange connecting it to Interstate 80 are substandard for the size of the community and lack the capacity to serve significant area growth. Figure 3.4-31 shows Lockwood's northern boundary at the Truckee River. Lockwood's entire north boundary abuts the Truckee River. The river and its riparian areas provide for parks, recreation, and a natural setting in which to live that defines the core character of this area. In the past, residential areas within Lockwood have been subject to heavy flooding including during the 1996 flood. To mitigate this hazard, Washoe County and Storey County worked together with the Federal Emergency Management Agency and the Truckee River Flood Management Authority to buy properties along the river and increase area available for flood storage.

Mustang

Mustang is approximately eight miles east of Sparks and immediately east of Lockwood along the southern bank of the Truckee River. This area includes a mixture of light- and heavy-industrial uses, including the Lockwood Regional Landfill. Most of the agriculture land abutting the Truckee River, including the former Mustang Ranch, has been rezoned and converted to light-industrial and natural resources uses.

Interstate 80 serves as the primary access to Mustang, and Mustang Road connects the area to the Interstate. The former Peri Ranch immediately east of Lockwood is considered part of Lockwood for

the purposes of this master plan (see Lockwood area plan). Lockwood is considered a potential beneficiary to commercial and industrial uses occurring in Mustang.

Existing and Future Uses

Over the last half-century, Mustang was an agriculture area with pockets of heavy industry, including aggregate mining, hydrocarbon reclamation, trucking, auto-wrecking and salvage, and permanent solid waste disposal. Until 1992 when the Mustang Ranch I and II and Old Bridge Ranch brothels were forced to close, Mustang was also the center of brothel activity in the county.

A similar industrial pattern exists in the area today; however, agriculture lands have been returned to natural resource uses and all area brothels were either demolished or relocated to other parts of the county. Approximately 100 acres of land to the east of Mustang Road and abutting the Virginia Range foothills was rezoned from light-industrial to heavy-industrial industrial between 2009 and 2015. The subject area, currently occupied by aggregate mining, trucking, and logistics, is being considered for additional diversified industrial uses. This general area is considered ideal for heavy-industrial zoning and uses. Community leaders and County officials have no interest in returning brothel activity to the area. Instead, Mustang is expected to continue its light- and heavy-industrial pattern with an increasing emergence of professional-office and other commercial use types.

Zoning and uses compatibility between Lockwood and Mustang should be at the forefront in planning for this area. Separation and other buffering between light-industrial uses in Mustang and residential and school uses in Lockwood should be required, and zoning allowing transition to more compatible uses in the interface areas should be considered. Heavy-industrial zoning and uses should be directed away from Lockwood residential areas and toward the east and south side of Mustang Road. Planning in this area should also consider integrating the built environment with walking trails, recreation facilities, and the natural environment of the Truckee River.

Lockwood Regional Landfill

The Lockwood Regional Landfill, in the foothills of the Virginia Range, approximately 1.5 miles south of the Truckee River, is the most prominent industrial use in Mustang. The landfill receives solid waste from Reno, Washoe County, Lyon County, and ten counties in California, as well as other jurisdictions. Under a special use permit with Storey County, the Class I Municipal Solid Waste Facility has operated since 1969, and under its current owner, Waste Management, Inc., since 1990. Under the company's 2006 special use permit, the landfill is permitted to occupy up to 2,673 acres of the 3,756-acre property where it is located. Potential build-out of the facility exceeds the 20-year duration of this master plan; more recent coordination and planning between the County and the landfill operator are discussed further in Chapter 9 – Public Services & Facilities.

River Restoration

Most agricultural land in Mustang has changed ownership, and water rights on the lands were stripped by developers and transferred out of the County, primarily to serve residential developments in Washoe County, thus rendering the land useless for agriculture and many other purposes. Except for the Mustang Ranch, much of the land in the area has become an attractive nuisance and has succumbed to proliferation of invasive weeds.

Residents in Lockwood and other areas of the county have expressed their desire to County officials to improve the Mustang area by encouraging clean industry that provides sustainable employment opportunity and improves the look and feel of the local area, particularly along the banks of the Truckee River and its immediate surroundings.

Compatibility with the Lockwood community and land use intensity phasing between Lockwood and heavy-industrial uses in eastern Mustang and the Lockwood Regional Landfill should be considered in land use decisions for this area. Equally important, it should be recognized that light- and heavy-industrial and commercial uses in the immediate area, when planned appropriately, may provide sustainable employment opportunities and other direct benefit for Lockwood and area residents.

Figure 3.4-32 shows recent improvements by the Nature Conservancy to the former Mustang Ranch. Channel sinuosity and the riparian environment, modified in the 1960s by the Army Corps of Engineers to facilitate farmland and increase irrigation efficiency, have been restored to their pre-modified natural state. Figure 3.4-33 and Figure 3.4-34 comprise the Lockwood-Mustang master planning area and sub-area planning map.



Source: Storey County Planning Department 2014

Figure 3.4-32: Nature Conservancy Improvements to the former Mustang Ranch

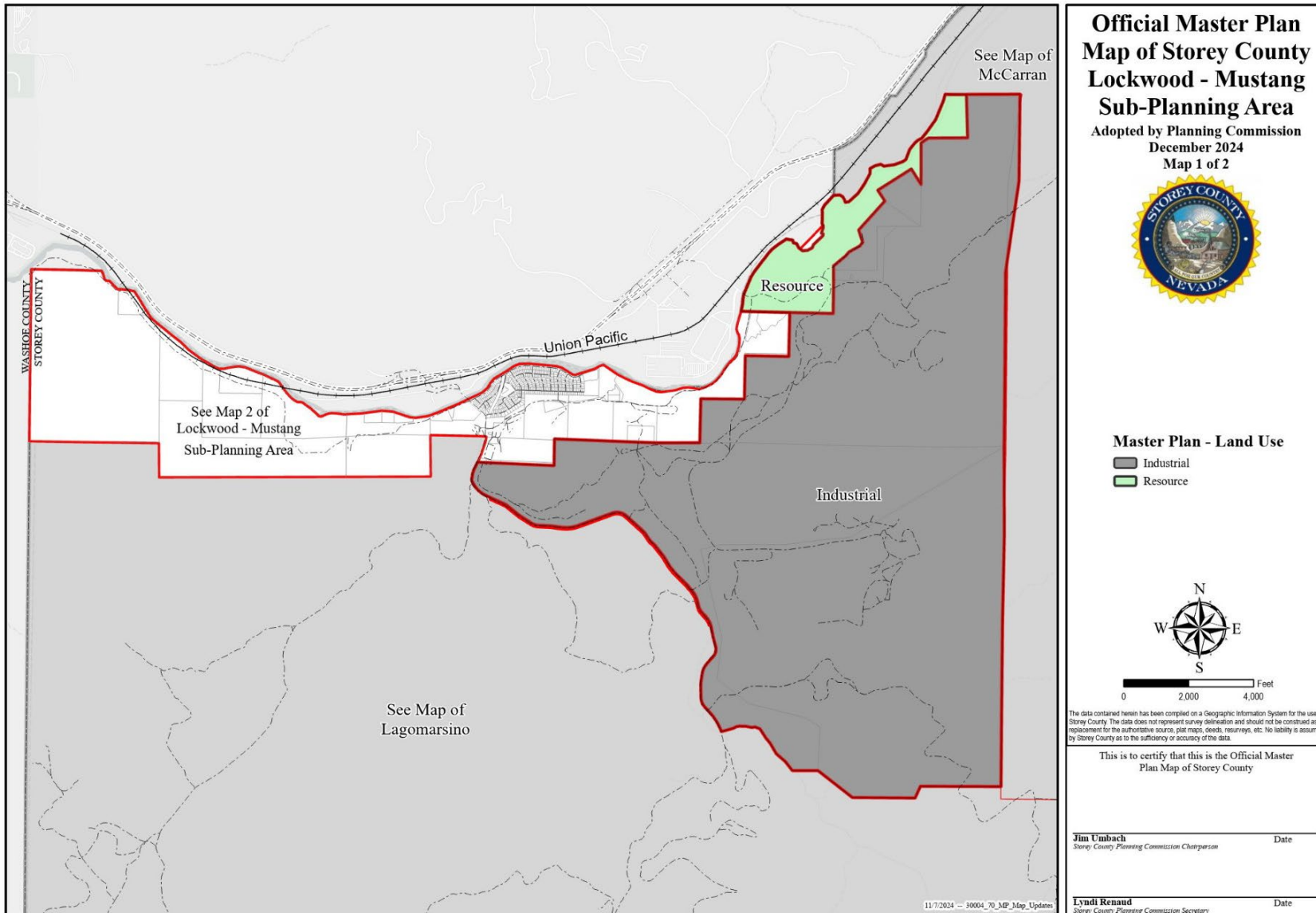


Figure 3.4-33: Master Plan Lockwood-Mustang Planning Area Map

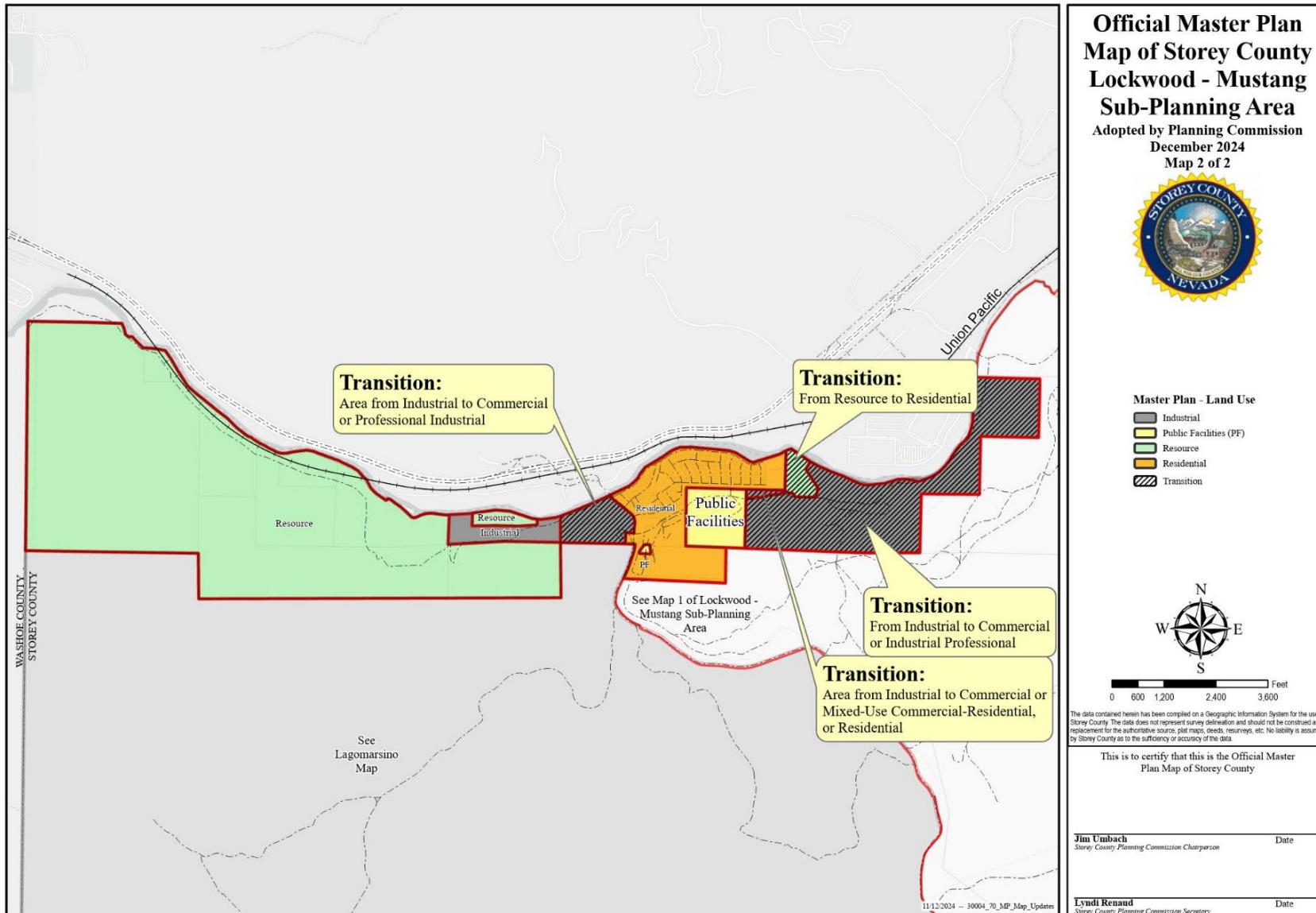


Figure 3.4-34: Master Plan Lockwood-Mustang Planning Area Map (continued)

3.4.5.3 Key Issues

Lockwood-Interstate 80 Interchange

The Lockwood to Interstate 80 Interchange currently provides principal access to Lockwood and portions of the Lagomarsino Area (see Lagomarsino Area Plan). Canyon Way is the main collector route connecting the area to the interchange. This infrastructure serves Lockwood area residents (approximately 1,333 residents, according to the Assessor's Office 2020 estimate) and 15 local commercial and light-industrial uses. The connection also provides primary access to a large quarry mine and the former Nevada Uplands industrial area, both accessed approximately three miles south of Lockwood toward the south terminus of Canyon Way.

The road infrastructure was constructed long before much of the existing commercial and residential development in Lockwood. Nominal improvements have since been made to the interchange and roadway, and it remains substandard for existing and anticipated future traffic loads and types. Figure 3.4-35 shows where tractor-trailers often must cross into the oncoming westbound traffic lane when attempting to negotiate the sharp turn on the eastbound lane, and where local residents and commercial drivers report that accelerating to normal interstate traffic speeds is challenging and sometimes impossible with the meager 500-foot westbound on-ramp.

A major reduction in truck traffic on the interchange and Canyon Way resulted in 2009 when Mustang Road, approximately three miles east of Lockwood, was extended to the Lockwood Regional Landfill, and when all truck traffic to and from the landfill was permanently diverted to the Mustang interchange and Mustang Road. The reduction in truck traffic significantly improved safety for children and pedestrians crossing Canyon Way between their residential neighborhoods and the Lockwood Market convenience store. Potential plans are being discussed to connect the quarry directly to Mustang Road and away from Canyon Way.

This master plan supports industrial and other economic activity in the Lagomarsino area. However, it is recognized that under existing circumstances, such activity may increase truck and other traffic on Canyon Way and the Lockwood interchange. Discussed further in Chapter 8 – Transportation, it is recommended that County officials collaborate with Lagomarsino area land developers to establish alternative principal access alignments, such as to Mustang Road.

It is recognized that the Lockwood interchange portions of Canyon Way are in Washoe County and under the jurisdiction of the Nevada Department of Transportation. Recognizing the traffic safety issues on the segment of Interstate 80 between Vista Boulevard in Sparks and USA Parkway, Nevada Department of Transportation is currently conducting environmental review to widen Interstate 80 to three lanes in each direction and reconfigure interchanges to accommodate growing traffic loads. Average annual daily traffic (AADT) between Vista and Lockwood is projected to grow from 30,000 vehicles to more than 68,000 vehicles in 2050 (Nevada Department of Transportation 2024).



Figure 3.4-35: Existing Infrastructure Connecting Lockwood to Interstate 80. “A” and “B” denote areas with substandard traffic flow for entering and exiting Interstate 80.

Tahoe-Pyramid Trail

In 2003, under the auspices of the Nevada Land Conservancy, the non-profit Tahoe-Pyramid Trail organization began purchasing property along the Truckee River and developing a non-motorized path for hikers, runners, and cyclists connecting Lake Tahoe to Pyramid Lake. Portions of the trail, including at Tahoe City, Verdi, Reno and Sparks, Tracey, Painted Rock, and from Wadsworth to Pyramid Lake are now complete and open to the public. The trail includes a combination of dirt paths and roads, vehicular road shoulder, paved bike paths, on-road bike lanes, and segments where the path is shared with a vehicular lane. The organization plans improvements to the trail including bridges over the Truckee River and agreements from private property owners to cross their land (Tahoe Pyramid Trail 2024). Figure 3.4-36 depicts the route and features of the Tahoe-Pyramid Trail.

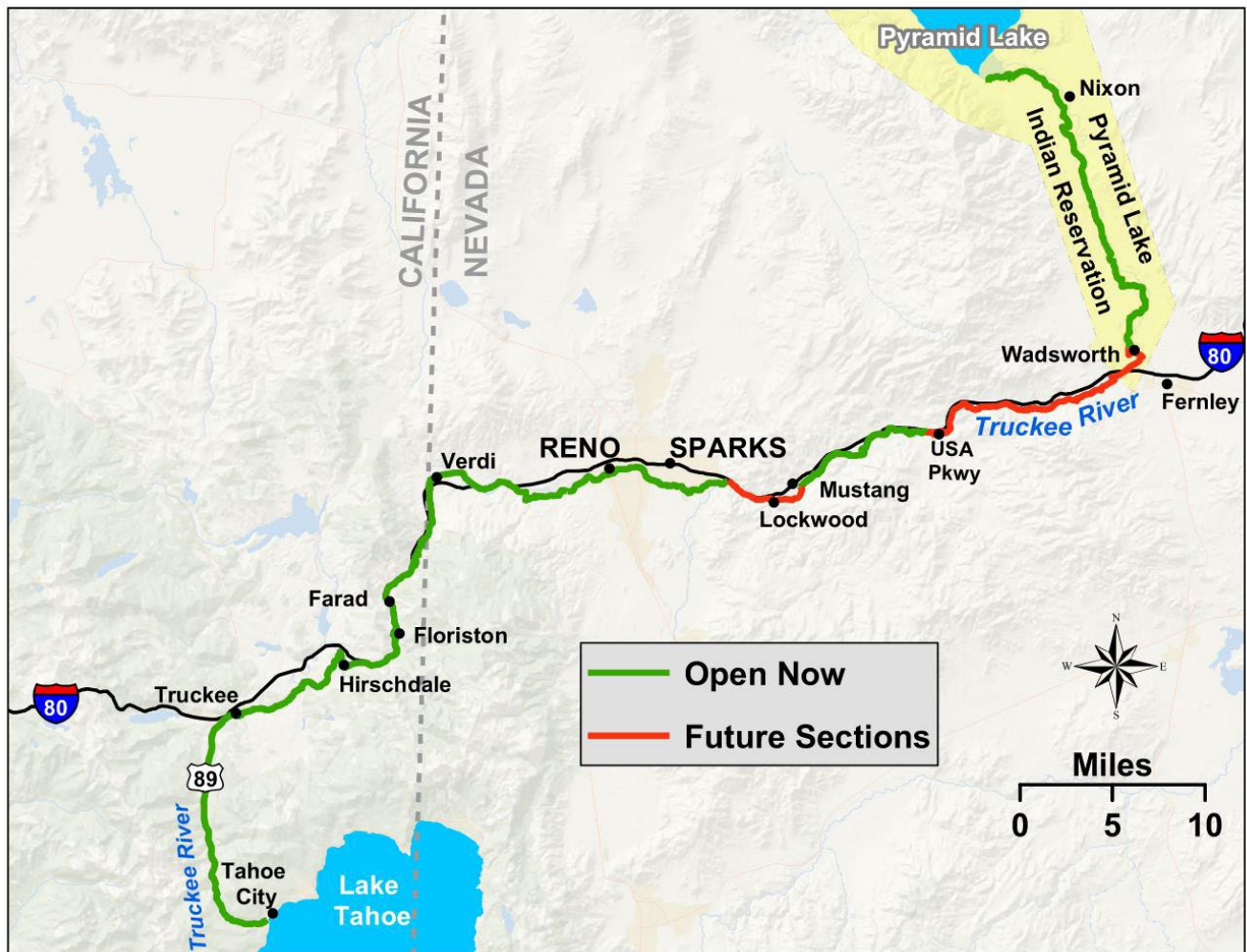


Figure 3.4-36: Tahoe-Pyramid Trail Proposed Alignment and Features

While the trail appears to be beneficial to the region, residents of Lockwood, particularly of Rainbow Bend, expressed concern to the County Board, Planning Commission, and other County officials that the trail would cause adverse impacts to the safety and wellbeing of the community (Figure 3.4-37). An influx of transient persons, homeless camps, and associated property crime in Lockwood, and the potential for eminent domain over common property of the Rainbow Bend Homeowner’s Association

by the trail organization, were cited by Lockwood residents as primary concerns of this project in its current proposed alignment.

Storey County officials have, for over 15 years, expressed support for the regional trail project through most of the county; however, they have also stood firmly beside Lockwood and Rainbow Bend residents defending their position on the trail alignment near the Lockwood community. County officials should continue to liaise between residents, trail staff, and other stakeholders in an attempt to mediate a mutually agreed alignment through this area. The desires of local residents on this matter should remain of forefront importance in any decisions made on its alignment near and through Lockwood.



Figure 3.4-37: Tahoe-Pyramid Bikeway proposed Lockwood Alignment – strongly opposed by Storey County and Lockwood residents.

Flooding

Portions of Lockwood and the Rainbow Bend residential community are located in the Federal Emergency Management Agency (FEMA) designated flood zone. Frequent flooding in this area occurs from Long Valley Creek and the Truckee River during winter months and late spring when high temperatures and heavy rain in the watershed's mountainous areas cause accelerated snowmelt. During high stage flooding of the Truckee River, backwatering occurs at the Long Valley Creek outlet which impedes creek drainage into the Truckee River and exacerbates flooding in the adjacent community.

In an effort to understand and address flooding concerns for the Lockwood community, Storey County has recently completed the 2024 Long Valley Creek Flood Hazard Mitigation Plan. This plan, along with a comprehensive county-wide flood control study conducted in 2011 and a countywide hazard mitigation plan in 2020, have identified potential projects and mitigation measures to make the community safer from flooding events. This topic is discussed further in Chapter 9 – Public Services & Facilities.

Adjacent Vacant Land North of Truckee River

Approximately 10 acres of vacant land in Washoe County abuts the Truckee River immediately north of Lockwood and Rainbow Bend (Figure 3.4-38). The land is distant from Washoe County municipal services and is further disconnected from developed areas by the abutting Interstate 80 and Union Pacific Railroad. Despite its close proximity to Lockwood, it is outside of Storey County's jurisdiction and is precluded by the Nevada Revised Statutes from connecting into Lockwood's Canyon General Improvement District. The land is isolated, making it difficult to use, and it has been plagued by illegal dumping, vehicle abandonment, homeless encampments and squatting, and other illicit activities.

During the master plan development process, local residents expressed to planning staff their desire for the County to consider ways by which the land may be transferred from Washoe County to Storey County. Potential benefits of transferring the land to Storey County included better policing capability, increased control over potential land uses, and added tax revenue for the County. In 2024, Storey County held a town hall in Lockwood in which the subject landowner and Washoe County Commission representative were in attendance. Discussion focused on the above, as well as the land being potentially ideal for residential development for the benefit of the Lockwood community and for the region. The majority of residents attending the meeting favored residential development of the land over industrial-type uses. Storey County is currently working with Washoe County, the subject landowner, and State legislative leaders to address the issue including possibly transferring the land from Washoe to Storey County. County staff will continue to communicate with the Lockwood community regarding the progress of this issue.



Source: Storey County Planning Department 2015

Figure 3.4-38: Adjacent Vacant Land North of the Truckee River in Lockwood

Interconnection

Connecting the Lockwood, Mustang, McCarran, and other northern communities in the county with Virginia City will become increasingly important as commercial growth and other activity continue to occur in the northern parts of the county. Lengthy discussion occurred during the master plan workshops about the potential benefits, adverse impacts, and challenges associated with constructing a north-south arterial route connecting Virginia City to Mustang and the Lagomarsino areas (see Lagomarsino Area Plan), as well as an east-west route linking the Lagomarsino area to Mustang, McCarran, and Washoe County.

Chapter 8 – Transportation discusses alternative routes connecting different areas of the county that were discussed during the master plan workshops. Connecting Lockwood/Mustang and Geiger Grade via a direct link between Long Valley Road and Mustang Road may be feasible; however, cost versus benefit needs to be studied further. Incorporating a third link between this route and McCarran, somewhere toward the center of the county, was also discussed. Highlands and Lockwood residents expressed concerns about traffic and adverse human-caused impacts that may occur after connecting the region in this way. Lockwood residents reminded County officials that decades of efforts by area residents and County officials resulted in rerouting Lockwood Regional Landfill truck traffic away from Canyon Way and to Mustang Road, and that connecting Canyon Way to a regional road system would return unsafe conditions that once existed to the center of the Lockwood community. Major roads connecting the south and central parts of the county with the interstate should align with Mustang Road and avoid Canyon Way at Lockwood.

Also considered during the workshops was a connection between McCarran and Virginia City via USA Parkway to Highway 50 and Six Mile Canyon Road, or a potential similar connection, but bypassing Highway 50 through the Mark Twain-Flowery Range Area Plan. Other options were also discussed but were found to be cost-prohibitive or strongly opposed by Highlands and/or Lockwood residents. These other options include an alignment between Geiger Grade and Lockwood using Lousetown Road and Canyon Way. This route was strongly opposed by Highlands and Lockwood residents due to traffic and other activity that would be concentrated through the approximate center of both residential communities. A direct northerly connection between McCarran and Six Mile Canyon was also considered; however, local topography appears to make such an alignment cost-prohibitive.

Road connections were discussed at master plan workshop meetings in Lockwood in 2023 and 2024. The residents remained concerned that connecting roadways will cause traffic issues within their community. Currently there are problems when Interstate 80 is backed up or closed temporarily and drivers exit the highway looking for an alternative route. Besides just the added traffic, there are concerns with bridge crossings over Long Valley Creek and roadways not designed for large vehicles. Connecting a roadway to other parts of the County may cause an increase in traffic through the community. Having a secondary access out of the community during an emergency situation would be desirable for residents. Further study and research are needed to identify where such a route may be feasible and how to limit this route to emergency use only.

While in the future, certain regional interconnection may become necessary, the County should work closely with area residents to determine alternatives that are consistent with this master plan and ensure that unintended negative consequences are prevented. The County should also consider future

population and other influential factors of Painted Rock before making substantial capital investment in directly connecting Virginia City with the northern end of the county.

Access to Public Schools

Hillside Elementary School provides kindergarten through fifth-grade education for the Lockwood, Painted Rock, and remaining northern county communities. The only secondary public schools in Storey County are in Virginia City, approximately one-hour's drive from Lockwood. The population of Lockwood and other northern county communities is insufficient to support secondary schools. However, residential growth in Painted Rock will likely result in the need for additional school facilities serving Storey County communities in the north (see Painted Rock Area Plan). It is anticipated that a school in Painted Rock may facilitate K-12 education for the local community, and secondary schools for the entire northern end of the county. The Storey County School District expressed support for maintaining a Pre-K-5 primary school in Lockwood.

Blight

Mustang's remote and isolated location make it highly attractive for illegal dumping, vehicle abandonment, squatting, and illicit activities. These circumstances are exacerbated by the presence of the vacant and dilapidated Old Bridge Ranch brothel facility and its surrounding vacant post-agricultural properties that have succumbed to blight and proliferation of invasive weeds. In recent years, the County has more closely monitored blight and dumping in this area, and the situation has improved. The County should continue encouraging the property owner to follow through on demolishing or removing the vacant buildings from the property and encourage improvement to the property.

Consistent Land Use Pattern

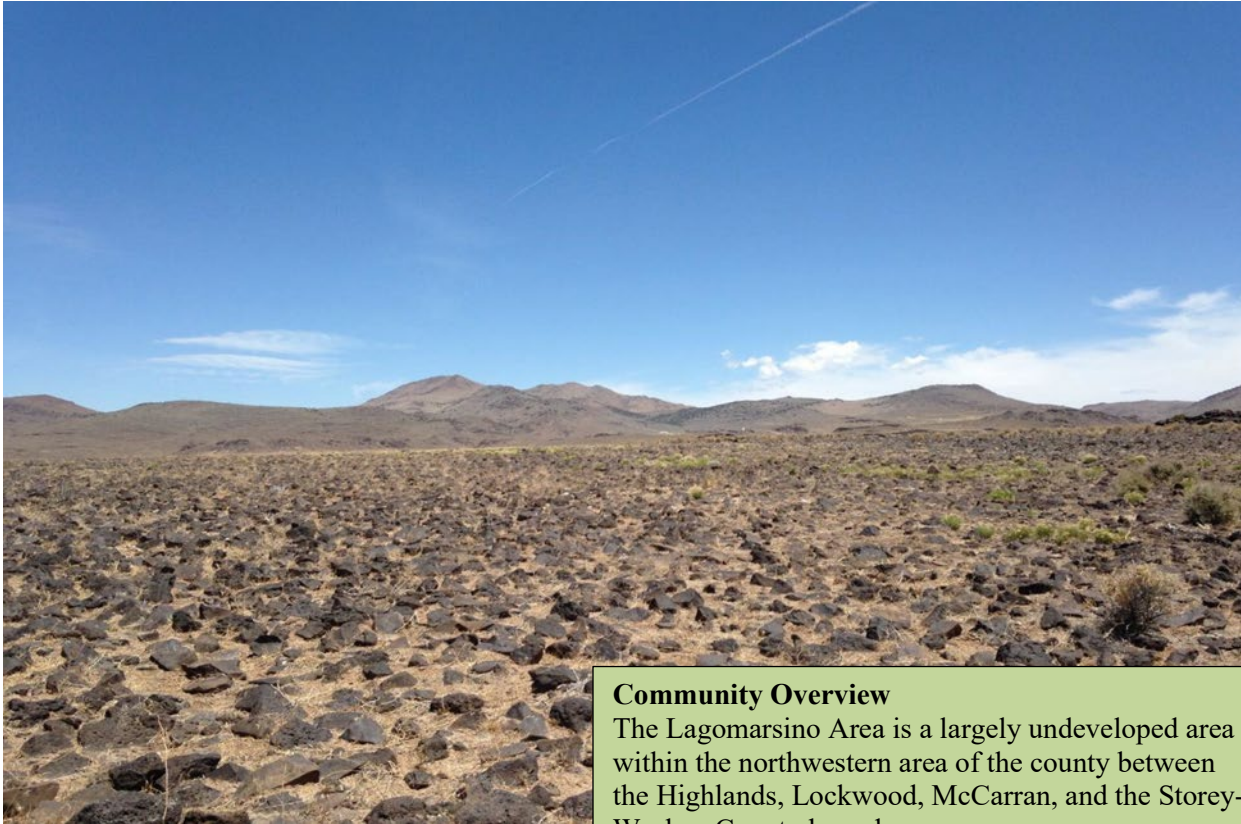
Existing growth patterns in Lockwood and Mustang were unplanned, resulting in areas of mismatch and compatibility challenges between agriculture, light- and heavy-industrial uses, brothels, and residences. The decommissioning of area brothels, transfer of blighted post-agricultural lands into natural resources restoration uses and light-industrial zoning, and other land use changes over the past decade have followed a more consistent and organized pattern that will better promote economic development and minimize impacts to existing uses. However, the County should continue to encourage and facilitate compatibility between uses affecting this area. Special consideration should be paid to the abutting properties shown in Figure 3.4-39. Any application by the land owner to convert the industrial zone to a zone more compatible with the abutting residential community should be supported. For these properties, as well as for the light-industrial zoned properties along Canyon Way and adjacent to existing residential uses, this master plan provides for transition areas where applications for more compatible land uses and zoning should be considered.



Source: Story County Planning Department 2015

Figure 3.4-39: Existing industrial zone abutting Rainbow Bend residential community at the southeastern corner

3.4.6 Lagomarsino Area Plan



Community Overview

The Lagomarsino Area is a largely undeveloped area within the northwestern area of the county between the Highlands, Lockwood, McCarran, and the Storey-Washoe County boundary.

It features a large tract of land dedicated to high-intensity industrial uses requiring extensive buffering, as well as lands reserved for other heavy industrial uses, utility transmission systems, and rural very low-density uses.

3.4.6.1 Introduction

The Lagomarsino Area includes approximately 37 square miles of land, including mountainous terrain and an elongated valley within the northwestern portion of Storey County between Lockwood, the Highlands, and Washoe County. The Lagomarsino area plan map is in Figure 3.4-40.

3.4.6.2 Existing and Future Land Uses

The Lagomarsino area is mostly vacant, privately owned, and in many places difficult to access. Land to the north and south are separated by steep mountainous topography. About two-thirds of the Lagomarsino area is designated in this master plan for heavy- and high-intensity industrial uses, while approximately 6,000 acres to the south and abutting the Highlands (Sunny Hills Ranchos) was previously subdivided with the intent to accommodate rural residential uses of no less than 40 acres. The Sunny Hills Ranchos is currently zoned Forestry (F) which provides for limited land uses and minimum 40-acre forestry parcels.

Area residents, mostly from Reno and Sparks, are attracted to the northern and central parts of the Lagomarsino area for unsanctioned recreational purposes, despite no official public access and most of the land being privately owned. A large aggregate quarry is located one mile south of Lockwood and west of the Lockwood Regional Landfill. The quarry has operated at this location since 2007 and is expected to continue for the foreseeable future.

An 8,600-acre privately owned bluff situated toward the eastern half of the Lagomarsino area and abutting McCarran and the Tahoe-Reno Industrial Center has great potential for commercial and industrial development which may provide significant employment opportunity for Lockwood and other northern communities in the county (Figure 3.4-41). The land is the former home of TRW, Aerojet, and Hi-Shear manufacturing and testing facilities. The property is currently zoned IS Special Industrial and I3 Heavy Industrial, both providing industrial uses as allowed by the master plan and zoning ordinance at the time. A smaller portion of the property is zoned F Forestry. The property has recently changed ownership, and new plans for non-residential development are underway.

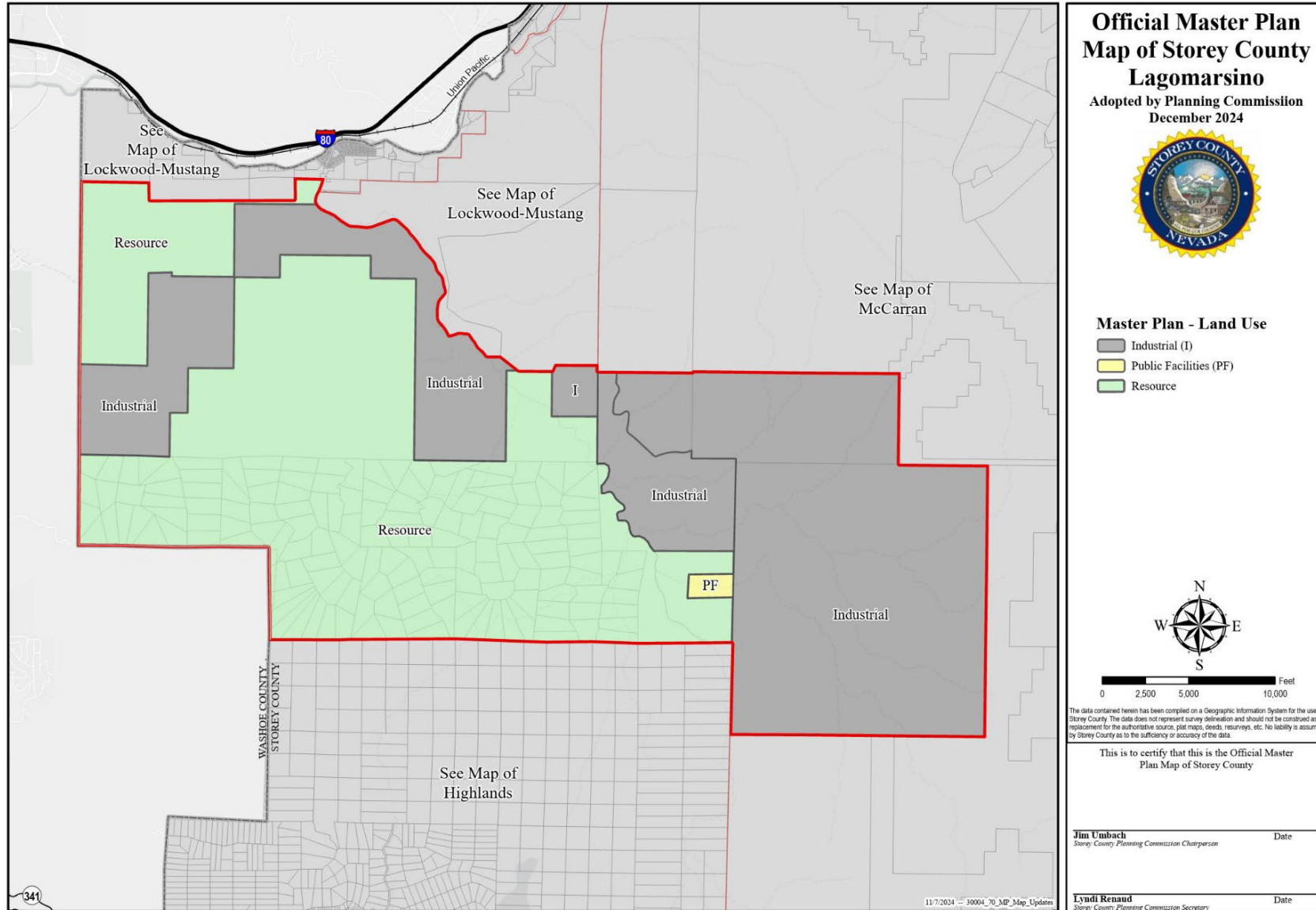
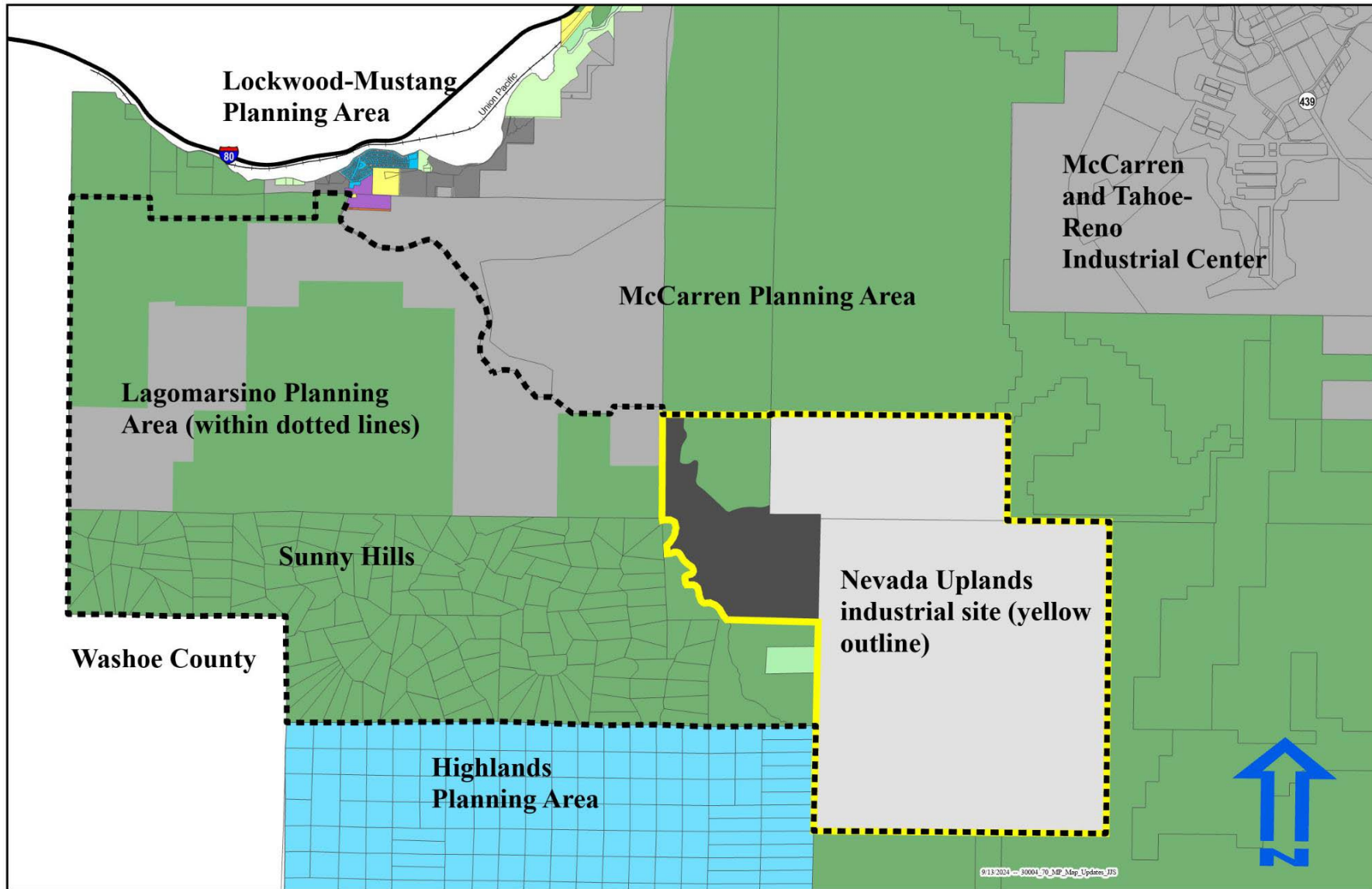


Figure 3.4-40: Master Plan Lagomarsino Planning Area Map



Source: Storey County Zoning Map 2012. Information delineated as approximate.

Figure 3.4-41: Land historically zoned and used for industrial uses, and position relative to neighboring communities

3.4.6.3 Key Issues

Potential Residential Encroachment

As the region continues to grow, Storey County will likely face increasing pressure from developers and officials of neighboring urban jurisdictions to allow residential development to sprawl into the Lagomarsino area. Storey County officials must remain well-versed in the history of growth and litigation in this area in order to ensure entitled industrial uses, uses now occurring in the surrounding planning areas, and the potential economic sustainability this area will provide to the county, are protected from residential encroachment and other incompatible uses. Allowed residential development in the Sunny Hills Ranchos must maintain 40-acre or larger parcels in order to maintain compatibility with the abutting Highlands rural residential community.

Roadway interconnection

Connecting communities in the county will become increasingly important as population and economic activity expand. Significant discussion occurred during the master plan workshops on the potential benefits, adverse impacts, and challenges associated with constructing a north-south arterial route connecting Virginia City to Mustang and the Lagomarsino area, and an east-west route tying the Lagomarsino area into McCarran and/or Washoe County. The Nevada Department of Transportation is studying the feasibility of connecting USA Parkway with south Reno; the study was incomplete at the time of this master plan update.

Highlands and Lockwood residents expressed concerns about traffic and other adverse impacts that may occur through regional interconnections. Lockwood residents reminded County officials that decades of effort by area residents and County officials resulted in rerouting Lockwood Regional Landfill truck traffic away from Canyon Way and to Mustang Road, and that connecting Canyon Way to a regional road system would return unsafe conditions that once existed to the center of the Lockwood community. Major roads connecting the south and central parts of the county with the interstate should align with Mustang Road and avoid Canyon Way at Lockwood.

While certain regional interconnection may be necessary, the County should work closely with area residents and landowners to determine alternative alignments that are consistent with this master plan and ensure that unintended negative consequences are prevented. The County should also consider future population and other influential factors of Painted Rock before making substantial investment in directly connecting Virginia City to the north end of the county.

Lockwood-Interstate 80 Interchange

The Lockwood to Interstate 80 Interchange provides principal access to Lockwood and portions of the Lagomarsino area. Canyon Way is the main collector route connecting the area to the interchange. This infrastructure serves approximately 1,333 residents (according to the Assessor's Office estimate for 2020) and 15 local commercial and light-industrial uses. The connection also provides primary access to a large quarry mine and the former Nevada Uplands industrial area, both accessed approximately three miles south of Lockwood toward the south terminus of Canyon Way.

The road infrastructure was constructed long before much of the existing commercial and residential

development in Lockwood. Figure 3.4-40 (Lockwood Area Plan) illustrates where tractor-trailers previously encroached significantly into the oncoming westbound traffic lane when attempting to negotiate the sharp turn on the eastbound lane. In 2024, per the request of Storey County and petitions from Lockwood residents, the Nevada Department of Transportation extended the westbound Interstate 80 onramp roughly 500 feet, thus resolving prior safety concerns for westbound motorists merging onto the interstate.

A major reduction in truck traffic on the interchange and Canyon Way resulted in 2009 when Mustang Road, approximately three miles east of Lockwood, was extended to the Lockwood Regional Landfill, and when all truck traffic to and from the landfill was permanently diverted to the Mustang interchange and Mustang Road. The reduction in truck traffic significantly improved safety for Lockwood children and pedestrians crossing Canyon Way between their residential neighborhoods and commercial services.

This master plan supports industrial and other economic activity in the Lagomarsino area. However, it is recognized that under existing circumstances, such activity may increase truck and other traffic on Canyon Way and the Lockwood interchange. County officials should collaborate with Lagomarsino area land developers to establish alternative principal access alignments that avoid Canyon Way in Lockwood. Connecting the Lagomarsino area to Mustang Road and directly to the Tahoe-Reno Industrial Center are considered improvements that will enhance commercial development potential of the Lagomarsino Area while minimizing adverse impacts to existing residential communities.

It is recognized that the interchange and associated collector road are in Washoe County and are under the jurisdiction of the Nevada Department of Transportation. However, County officials should continue to collaborate with state transportation officials in order to secure funding and resources necessary to improve this infrastructure in order to accommodate existing and future uses in Lockwood and the Lagomarsino area.

Protection of the Lagomarsino Petroglyphs Site

There is an 80-acre site near the center of the county where an estimated 2,000 prehistoric petroglyphs exist (see Chapter 11 – Cultural & Historic Resources). The site is protected by federal law, which prohibits the release of specific site location information in a public document. However, the internet has increased awareness of the existence and location of the petroglyphs, and vandalism and theft have become an increasing problem.

Over the past two decades, Storey County, various volunteer organizations including the Nevada Rock Art Foundation, local residents, and other stakeholders expressed desire to the State Historic Preservation Office and other state agencies to designate and manage the site as a state park with full-time supervision. However, local and state resources available to appropriately manage the site are currently limited. County officials will continue to work with local residents and volunteer groups to monitor the site while the County and various agencies research permanent solutions to protecting this resource.

Proposed land use projects in the vicinity could pose significant negative consequences to this cultural resource, including, for example, a highway between Reno and the Tahoe-Reno Industrial Center and Greenlink West regional electrical grid connections, and the elements they bring to the area; planning for mitigation is critical. County officials should seek counsel from the State Historic Preservation Office when considering land use proposals that could have direct and indirect negative effects on the petroglyphs.

3.4.7 McCarran Area Plan



Community Overview

The McCarran Area is a homogenous planned industrial center toward the northeastern part of Storey County, nine miles east of Lockwood. It is home to the Tahoe-Reno Industrial Center and is dedicated solely to manufacturing, utility power production, warehousing and distribution, and other heavy- and light-industrial and commercial uses. The industrial center has grown to become a major regional hub for distribution, alternative energy production, digital data management, and highly intensive and experimental industries.

3.4.7.1 Introduction

McCarran is home to the Tahoe-Reno Industrial Center and adjacent heavy industrial uses outside annexed portions of the industrial park. Part of the former McCarran Ranch, the McCarran area encompasses approximately 107,000 acres from the north-central part of the county to the banks of the Truckee River. McCarran is currently the location of over 70,000 acres of light- and heavy manufacturing and distribution, renewable and non-renewable power generation, waste-to-energy, data management, and other unique and high-intensity industries. The area is currently served by Interstate 80, the Union Pacific Railroad, the Tracy-Clark Combined Cycle Power Generating Plant, the Tuscarora natural gas pipeline, and other infrastructure within the Interstate 80 corridor. USA Parkway and Waltham Way are the principal arterial vehicular routes connecting the industrial center to the interstate.

3.4.7.2 Existing and Future Lands Uses

Industrial and Commercial Uses

The 1994 and 2016 Master Plans identified the McCarran area as a “prime location in which further industrial development can be expected to occur” (Storey County Master Plan, 1994, p. 53). The area is highly suitable for high-intensity and experimental industrial uses with the Union Pacific transcontinental railroad and Interstate 80, five major power generation plants and natural gas transmission and distribution systems, power and other utility transmission infrastructure, and the area’s separation from residential uses.

In 2000, a development agreement between Storey County and land developer Roger Norman (Tahoe-Reno Industrial Center, LLC) was ratified by the Board of County Commissioners. The agreement provides entitlements within the Tahoe-Reno Industrial Center, allowing light-, heavy-, and high-intensity industrial and commercial uses in a secure regulatory and entitlement environment. Most industrial uses within portions of McCarran annexed into the Tahoe-Reno Industrial Center (Figure 3.4-42) and are allowed with no special permitting or voting body approvals.

The entitlements and security provided by the development agreement laid the foundation for unprecedented growth for northern Nevada over the past two decades. The McCarran area now has over 23,000,000 square feet of warehousing, distribution, manufacturing, energy production, data server, and other industries, including over a dozen Fortune 500 companies, and most recently in 2014, the Tesla “Gigafactory.” An estimated 18,000 jobs are provided at the industrial center. McCarran’s rapid growth has caused it to become a major industrial and employment hub for the northern Nevada region as well as for Storey County.

As supported by the 1994 and 2016 Master Plans, this master plan identifies McCarran exclusively for industrial and commercial uses. Due to the intensity of allowed uses, it is not an appropriate place for residential development. Residential development must also not be allowed to encroach into its immediate surrounding areas. The five residences on Agriculture zoned land at the far west end of McCarran should be considered as a pre-existing exception in this plan.

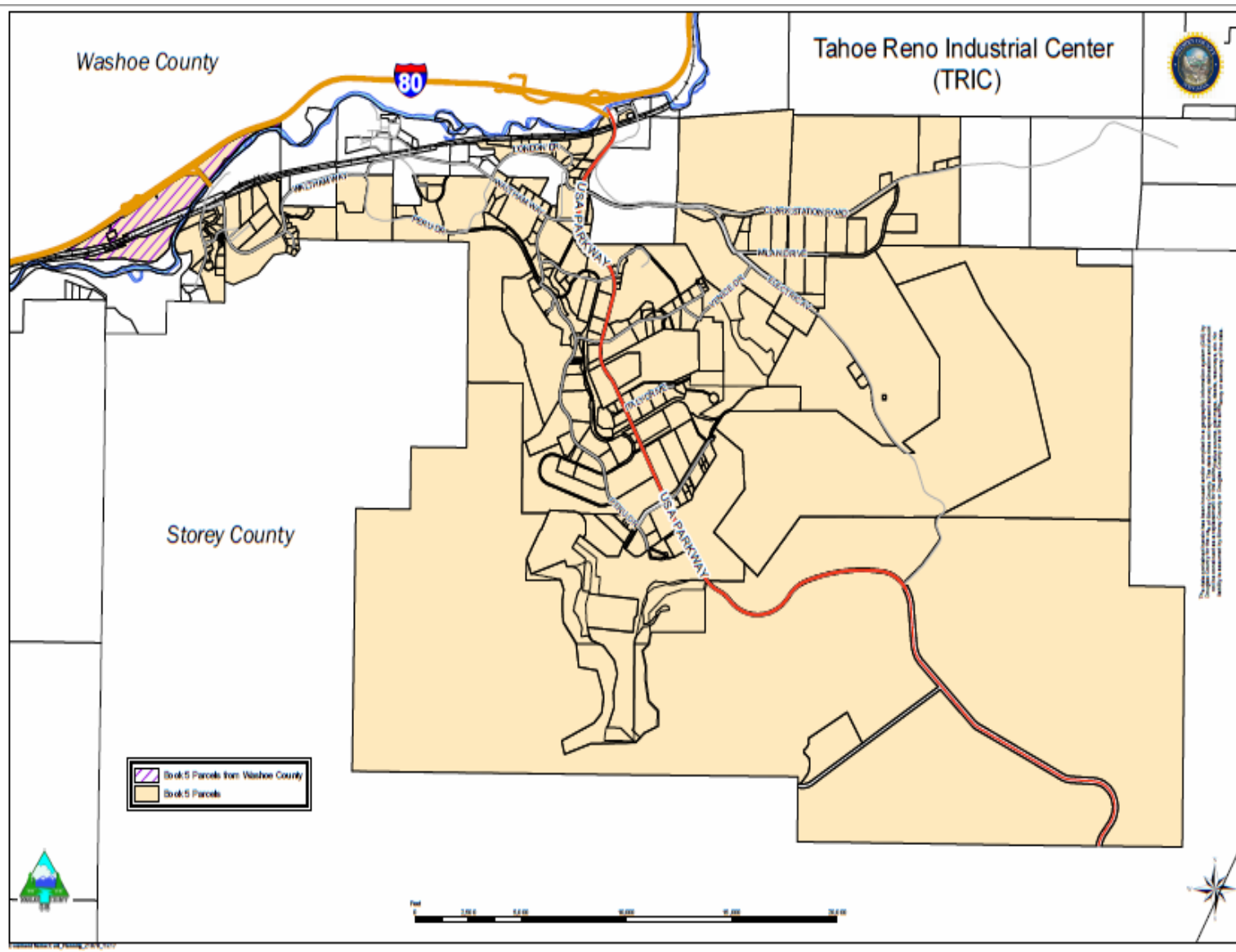
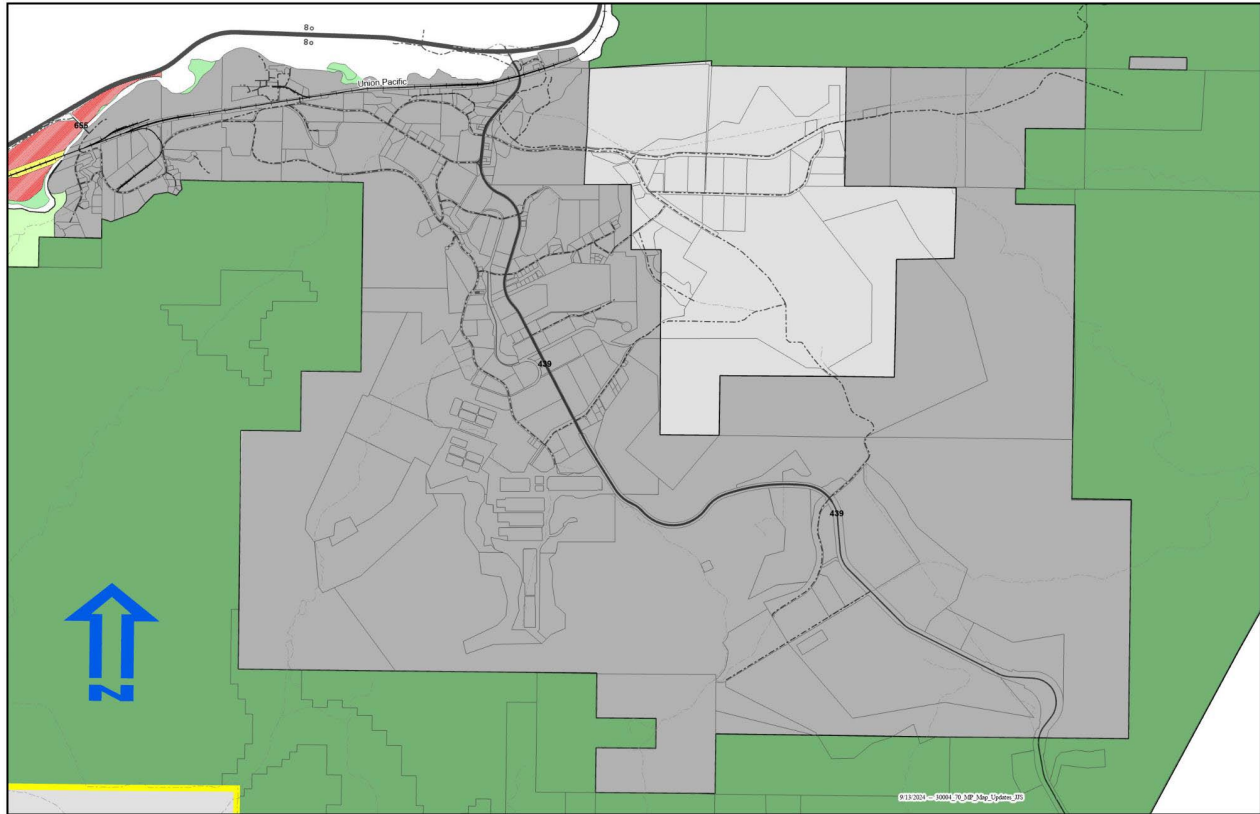


Figure 3.4-42: McCarran parcels annexed into the Tahoe-Reno Industrial Center and subject to the provisions of the development agreement

Figure 3.4-43 shows over 70,000 acres zoned for industrial uses (areas shown in light and dark gray). The development agreement between Storey County and the Tahoe-Reno Industrial Center, LLC (2000), considers zoning and allowed uses existing since 1999 to be fully entitled and protected from new local regulations, unless those regulations are accepted by the Tahoe-Reno Industrial Center. Figure 3.4-44 shows typical industrial use in McCarran.



Source: Official Storey County Zoning Ordinance 2012

Figure 3.4-43: Zoning Entitlements at McCarran



Source: Storey County Building Department 2014

Figure 3.4-43. Dynamic Isolation Systems facility in the McCarran Area

USA Parkway (State Route 439)

State Route 439 (USA Parkway) is a divided four-lane major arterial route serving as the primary connection between McCarran and Interstate 80. In 2014, the road (with portions previously developed by the Tahoe-Reno Industrial Center and dedicated to Storey County as a public road) was assumed by the Nevada Department of Transportation and was designated as State Route 439. The State Route connects from Interstate 80 and runs south all the way to U.S. Highway 50 near Silver Spring. This route south from the industrial center is an important component to potential growth that may happen in the Mark Twain-Flowery Range Planning Area. As both federal and state roadway systems develop in the future, Storey County will work with Nevada Department of Transportation and federal partners to ensure that road connections are in the best interest of the County, its residents, and its businesses.

The McCarran Area planning maps are shown in Figures 3.4-45 to 3.4-47.

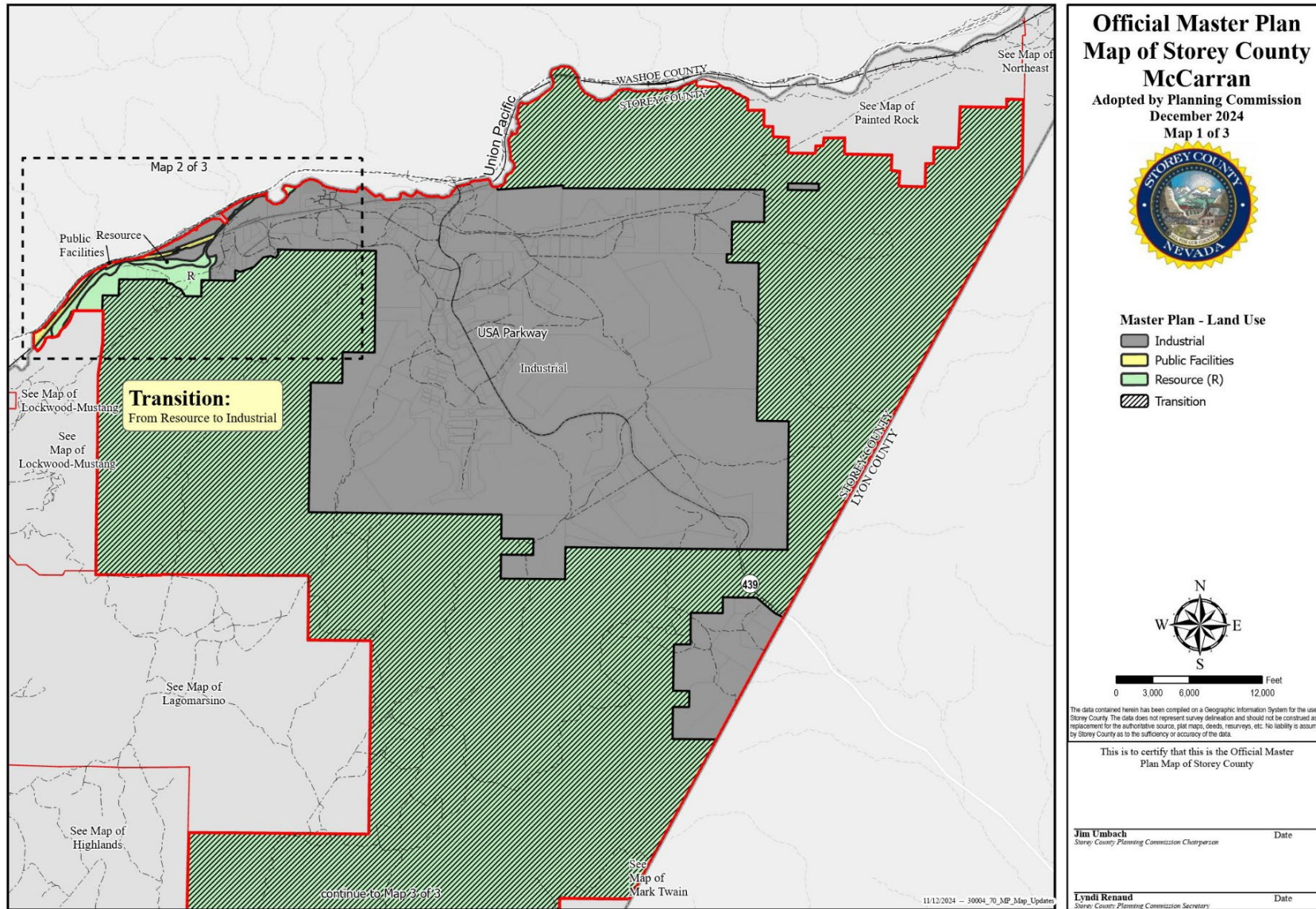


Figure 3.4-45: Master Plan McCarran Planning Area Map (Sheet 1 of 3)

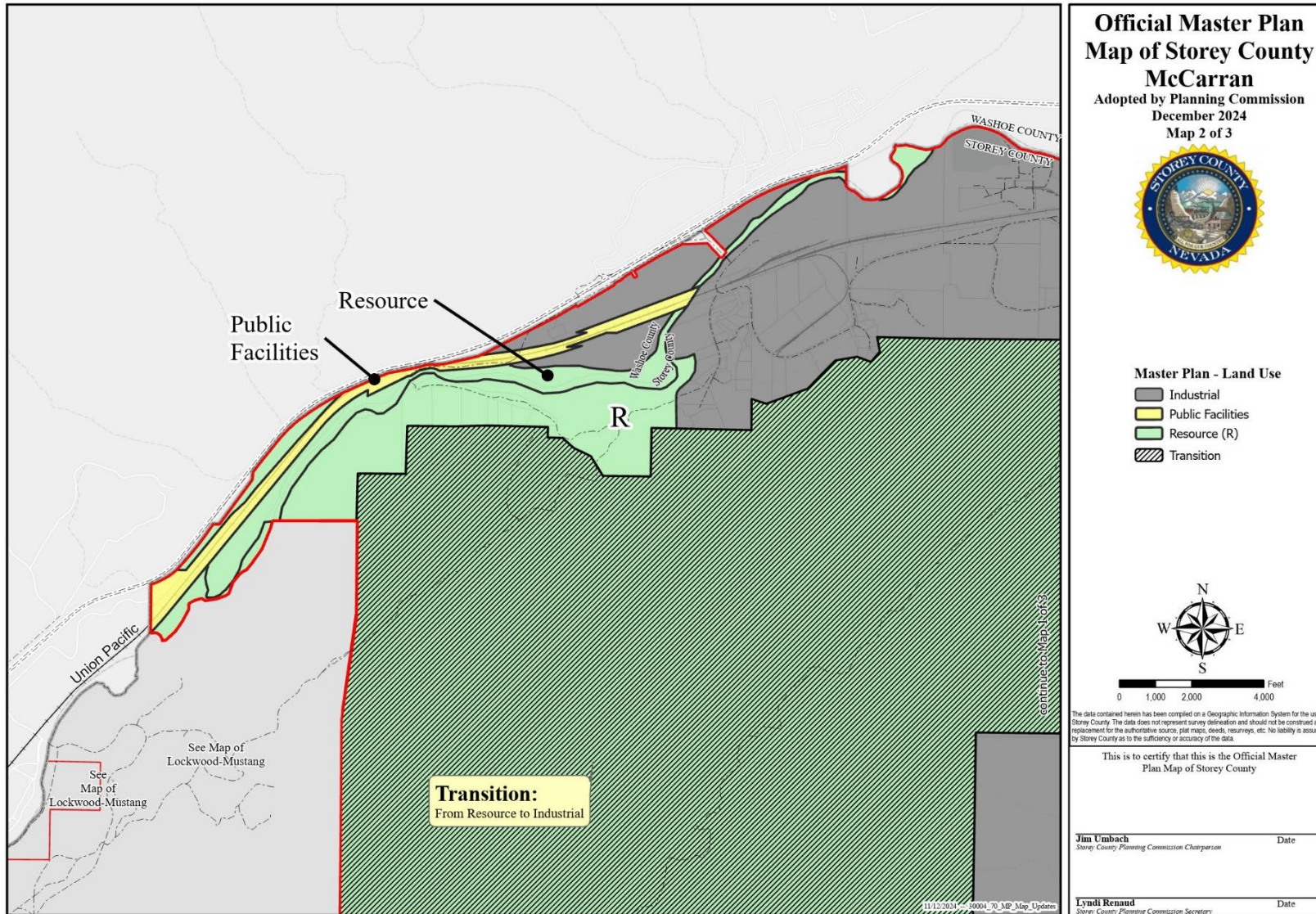


Figure 3.4-46: Master Plan McCarran Planning Area Map (Sheet 2 of 3)

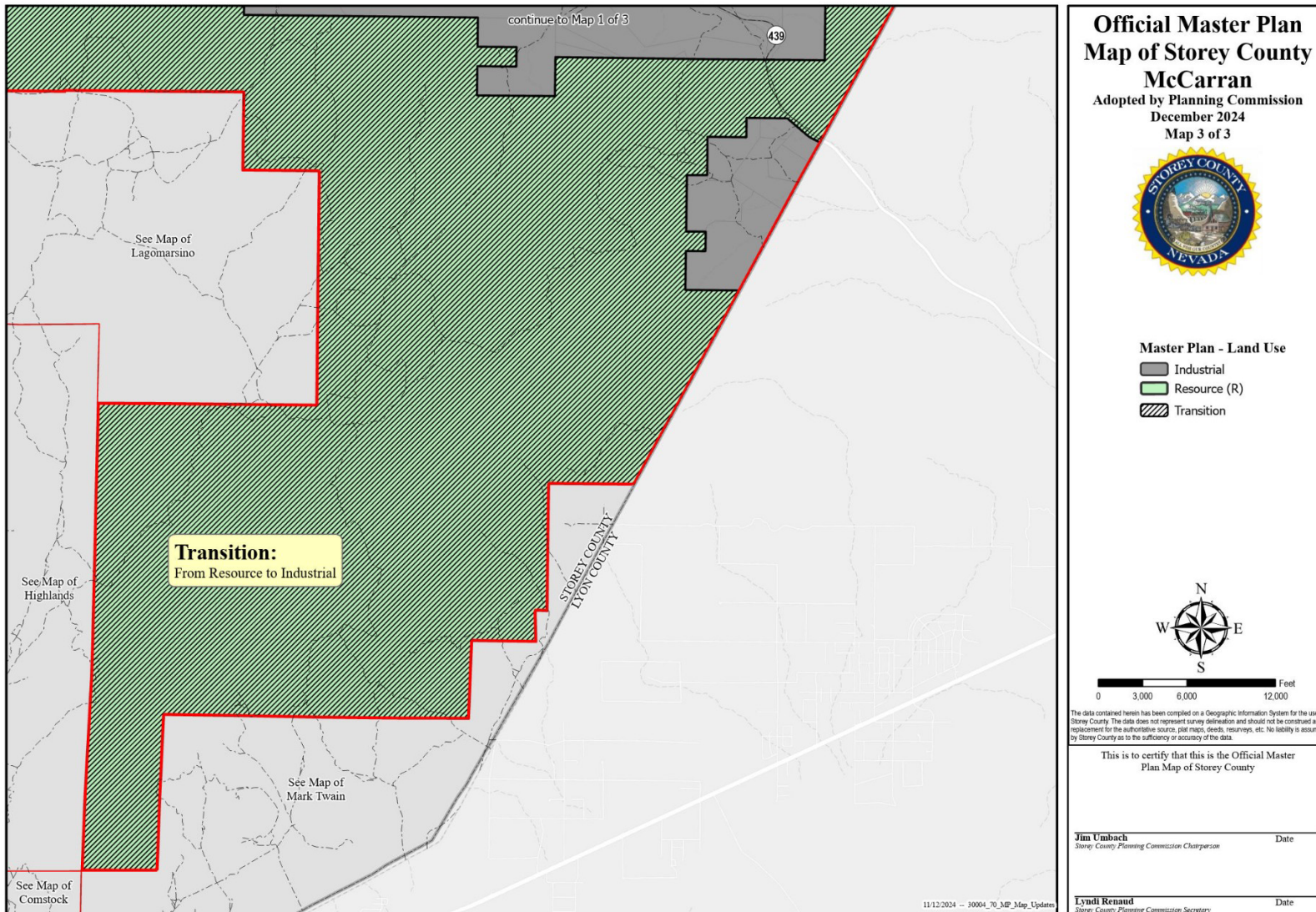


Figure 3.4-47: Master Plan McCarran Planning Area Map (Sheet 3 of 3)

3.4.7.3 Key Issues

The success of the Tahoe-Reno Industrial Center and other commercial activity at McCarran is partly attributed to entitlements provided in the development agreement between the principal developer and Storey County. Another key contributor to the success of business in this area is its separation from residences and other incompatible uses, and its proximity to existing regional urban centers. These attributes of McCarran make it attractive to prospective companies from across the world wishing to do business in and improve the northern Nevada region.

Residential Encroachment into Industrial Areas

The 1994 Master Plan identified McCarran as an ideal location to develop a consolidated industrial center, and the 2016 Master Plan continued to support development of McCarran exclusively for industrial and commercial purposes. Residential development at the Tahoe-Reno Industrial Center is prohibited by the development agreement, and such development in the McCarran Planning Area should not be allowed, with exception of several already existing agriculture-zoned residential parcels in the far west area of McCarran.

Directing residential growth elsewhere, as allowed by this master plan, will minimize potential land use conflicts, ensure the long-term economic vitality of the county and its incumbent industries, and maintain a safe and healthy environment for residents and employees.

Residential Uses serving McCarran

Industrial and commercial development at McCarran continues to generate vast employment opportunity for residents in Storey County and northern Nevada. While this master plan discourages housing development in and immediately around the industrial center, housing needs associated with employment growth at the industrial center are considered in this master plan.

Discussed further in the Painted Rock Area Plan and in the Mark Twain-Flowery Range Area Plan, Painted Rock and land east of the Mark Twain-Flowery Range Area may be considered for potential mixed-use residential communities.

Interconnection

The importance of connecting the Lockwood, Mustang, McCarran, and other north communities in the county with Virginia City will become increasingly important as commercial growth and other activity continue to occur in the northern parts of the county. Lengthy discussion occurred during the master plan workshops about the potential benefits, adverse impacts, and challenges associated with constructing north-south and east-west arterial connections in the county.

Chapter 8 – Transportation discusses alternative routes connecting different areas of the county that were discussed during the master plan workshops. Connecting Lockwood/Mustang and Geiger Grade via a direct link between Long Valley Road and Mustang Road may be feasible; however, the cost-benefit ratio needs to be studied to determine feasibility. Incorporating a third link between this route and McCarran, near the center of the county, was also discussed. Highlands and Lockwood residents expressed concerns about traffic and adverse human-caused impacts that may occur after connecting the region in this way. Also considered during the workshops was a connection between McCarran

and Virginia City via USA Parkway to Highway 50 and Six Mile Canyon Road, or a potential similar connection, but bypassing Highway 50 through the Mark Twain-Flowery Range Area Plan. Other options were also discussed but were found to be cost-prohibitive or strongly opposed by Highlands and/or Lockwood residents. These options include an alignment between Geiger Grade and Lockwood using Lousetown Road and Canyon Way. This route was strongly opposed by Highlands and Lockwood residents due to traffic and other activity that would be concentrated through the approximate center of both residential communities. A direct northerly connection between McCarran and Six Mile Canyon was also considered; however, local topography appears to make such an alignment cost-prohibitive.

A planned unit development at Painted Rock may be accessed primarily via Interstate 80 and the Painted Rock Interchange. However, an alternative route connecting Painted Rock directly to McCarran should be reviewed. The county should also consider future population and other influential factors of Painted Rock before making substantial capital investments toward directly connecting Virginia City with the northern end of the county.

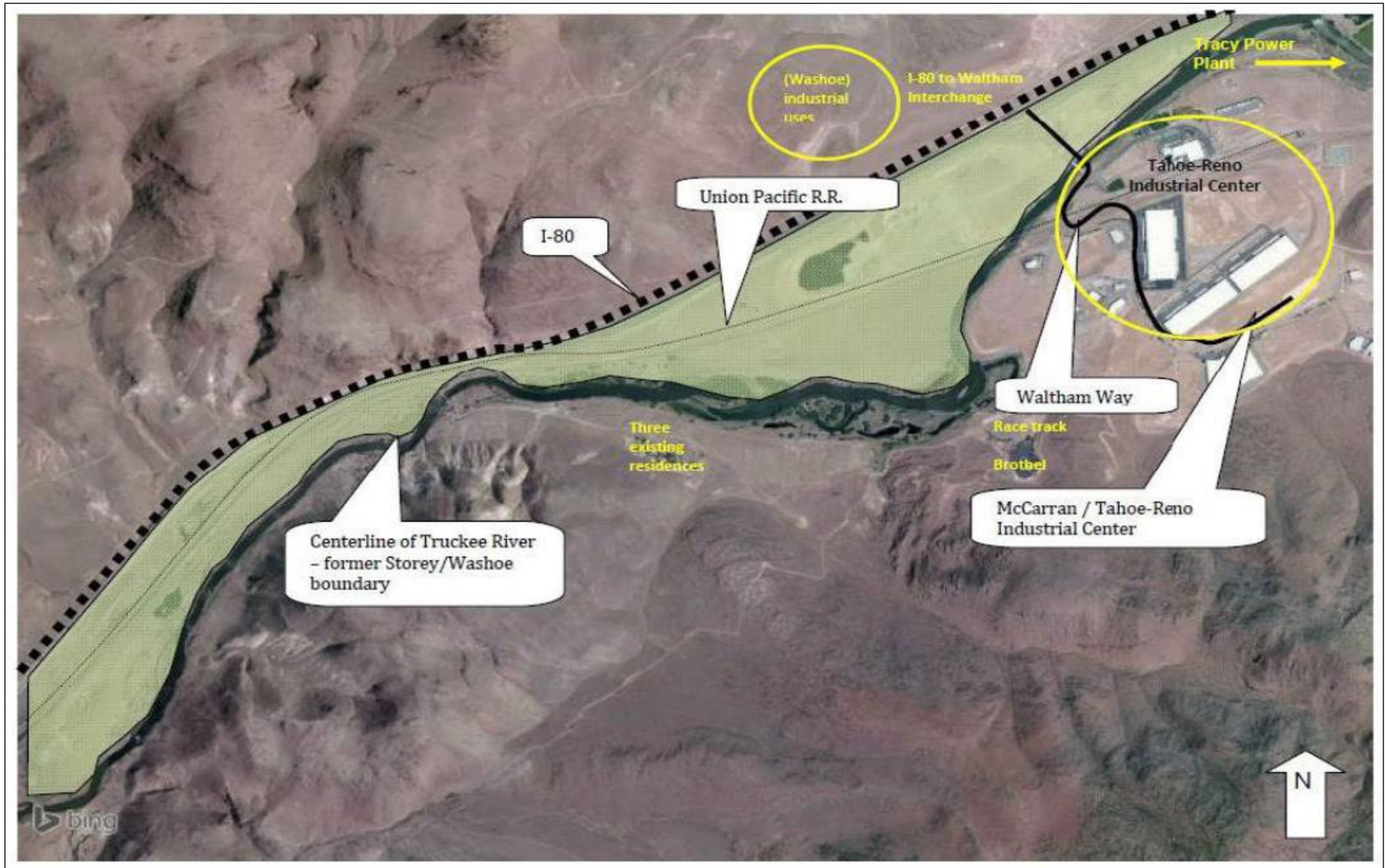
Patrick and USA Parkway Interchanges

McCarran and the Tahoe-Reno Industrial Center are now principally accessed from Interstate 80 at the Patrick Interchange to the west and USA Parkway Interchange to the east.

The USA Parkway interchange was developed in 2005 and generally meets traffic capacity for the area. However, the Nevada Department of Transportation initiated a traffic capacity analysis in the spring of 2015 to determine what improvements to the interchange may be needed to meet anticipated future traffic loads and patterns.

The Patrick Interchange was constructed well before the McCarran area was developed. Patrick Interchange, connecting half of the industrial center to the interstate, is substandard for existing traffic loads and may become a major factor inhibiting further development in the immediate area. A portion of the interchange is in Washoe County, but its principal function is to provide access to McCarran, located entirely in Storey County. It is recognized that the interchange and associated collector road are under the jurisdiction of the Nevada Department of Transportation. However, County officials are encouraged to collaborate with state transportation officials in order to secure funding and resources necessary to improve the infrastructure.

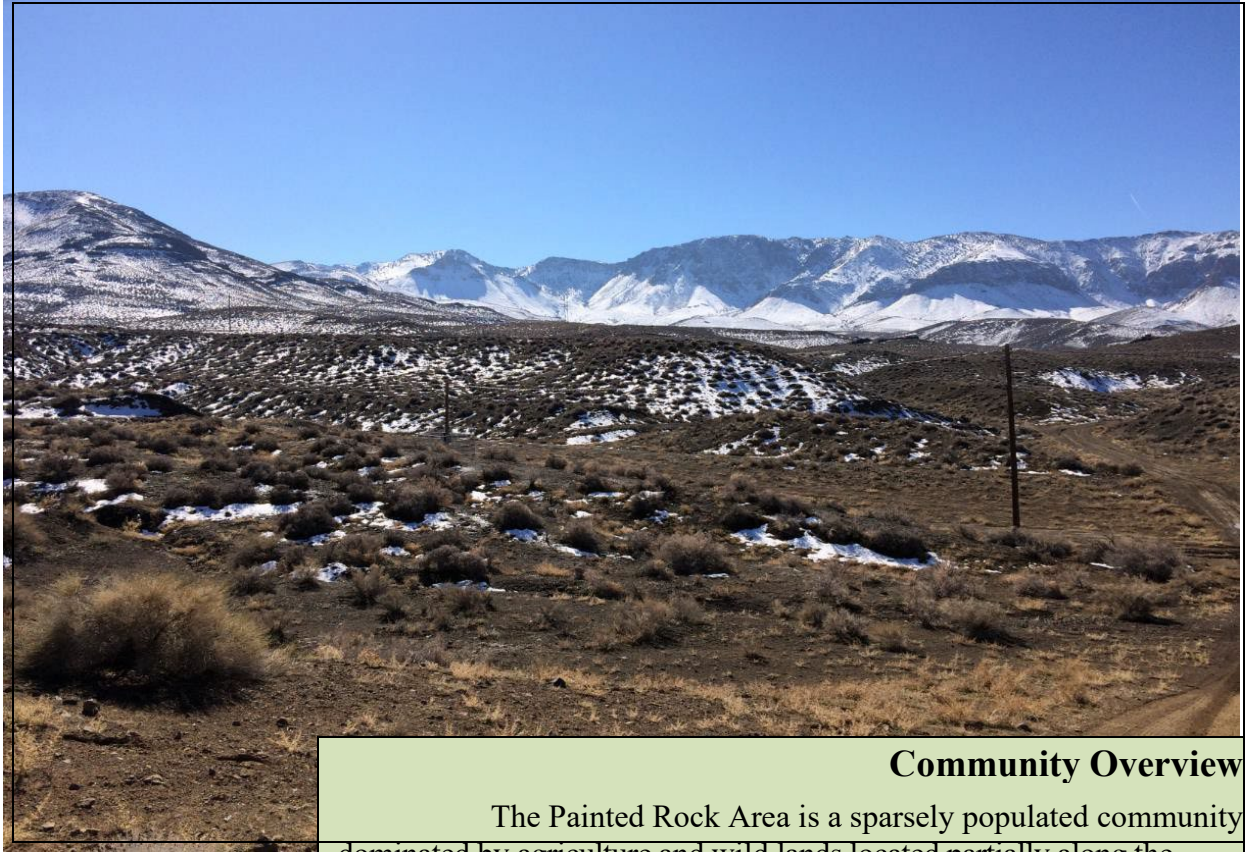
In 2015, approximately 580 acres of land were transferred from Washoe County to Storey County. The land was zoned IC Industrial-Commercial to facilitate large-scale commercial uses such as truck stops, major retail, and hotels. Significant improvements to the Patrick Interchange may need to be completed before such development occurs (Figure 3.4-48).



Source: Storey County Planning Department 2014

Figure 3.4-48: Land Transferred from Washoe County to Storey County

3.4.8 Painted Rock Area Plan



Community Overview

The Painted Rock Area is a sparsely populated community dominated by agriculture and wild lands located partially along the south bank of the Truckee River at the far northeastern portion of Storey County. The area is remote and largely undeveloped but has potential to become a planned residential and mixed-use community serving the housing needs of nearby businesses at McCarran.

3.4.8.1 Introduction

Painted Rock is approximately 18 miles east of Sparks and five miles west of Fernley along the southern edge of the Truckee River. The area includes the Truckee River riparian lands and the northern foothills of the Virginia Range. Riparian areas are dominated by agricultural uses and the high-desert steppe of the Virginia Range foothills is mostly undeveloped (Figure 3.4-49). Painted Rock currently includes about a dozen residential dwellings on large estate and agricultural parcels. There are no commercial uses except as related to agriculture in this area.

Interstate 80 serves as the primary access to Painted Rock, and Painted Rock Road from Painted Rock Exit 40 connects this area to Interstate 80. The close proximity of this area to industrial and commercial activity at McCarran makes it a prime candidate for a planned mixed-use residential community serving the employment needs of the nearby industrial center.

3.4.8.2 Existing and Future Uses

Riparian Environment

The riparian area along the Truckee River is mostly occupied by estate residences and hobby farms. Similar to what has occurred in Mustang, Lockwood, and other nearby areas of the county, most of the water rights in Painted Rock have been purchased by developers and transferred to land in Washoe County for municipal purposes.

Future use of this land for agriculture is largely dependent on the economic viability of farming to landowners and the availability of water. County officials, non-profits, and the Nevada System of Higher Education may provide needed resources, including funding mechanisms and land entitlements, needed for continued farming. Landowners may also receive assistance from these entities to adapt to more lucrative farming practices such as organic and experimental crop production.

The County should work collaboratively with appropriate non-profits and other organizations to restore the lands to their natural riparian state, to mitigate noxious weeds and nuisance conditions, and to enhance natural riparian habitat for wildlife and passive recreation for area residents. The County should also explore the potential of rezoning land from A Agriculture to E Estate, or other zoning that complements and encourages improvement to riparian areas of the Truckee River even if not exclusively for agriculture.

The Painted Rock planning area map is in Figure 3.4-50.



Source: Storey County Planning Department, Development Application No. 2006-062, Painted Rock Partners, LLC 2006

Figure 3.4-49: Typical Landscape of the Painted Rock Area and the Truckee River

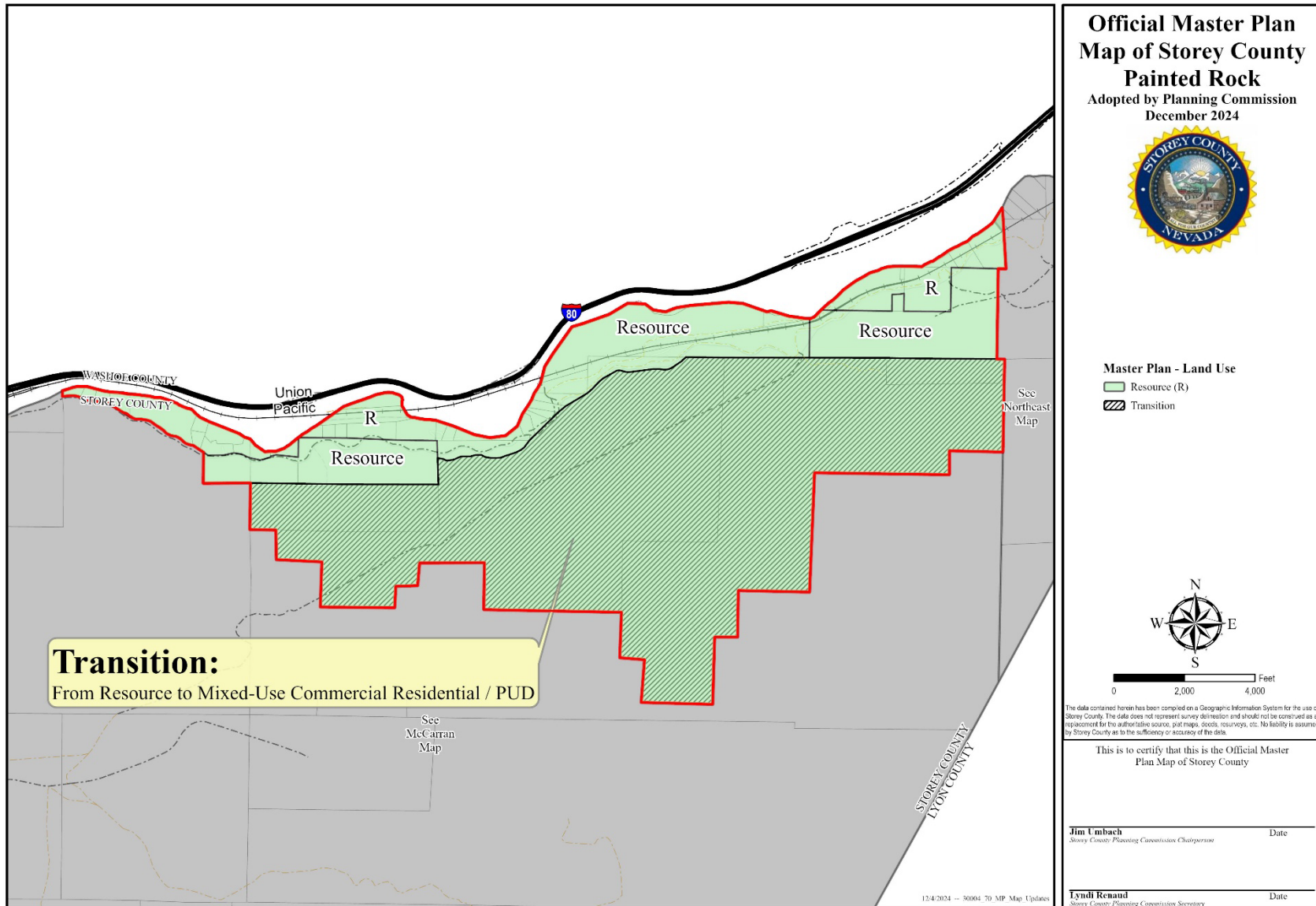


Figure 3.4-50: Master Plan Painted Rock Planning Area Map

3.4.8.3 Key Issues

Access

Interstate 80 serves as the primary access to Painted Rock, and Painted Rock Road from the Painted Rock Exit connects this area to the interstate. The design and condition of local roads, bridges, and other such infrastructure is problematic for this community.

The bridge crossing the Truckee River (Figure 3.4.-51) from Washoe County is the only practical access to this area. The bridge is one-lane, antiquated, and below the Federal Emergency Management Agency 100-year base-flood elevation; it often becomes inundated. Canal Road, serving approximately 20 local residences, is also problematic. Running along the Truckee Carson Irrigation District Canal, the one-lane road is narrow and windy with no shoulder or barriers between it and the canal. The bridge was constructed in 1918 and continues to serve as primary vehicular access to the residents of Painted Rock. A safer, higher capacity bridge, elevated above the floodplain, will be necessary for future development to occur in this area.

Secondary access exists over approximately 12 miles of unpaved and unimproved roads and trails between Painted Rock and Fernley. However, many of these routes are insufficiently mapped, are difficult to navigate, and encroach into private property including into Union Pacific Railroad rights-of-way and Pyramid Lake Paiute Tribal lands. Further exacerbating the problem, the Union Pacific Railroad has employed concerted efforts to removing at-grade railroad crossings in the area without providing alternative means of accessing adjacent land.

The County should consider working with land developers, federal grant administrators, the Union Pacific Railroad, and other organizations to improve and provide reliable secondary access to the northern and southern parts of this area once development is proposed in this area. Until improved railroad crossings are developed by the Union Pacific Railroad, the County should strongly protest efforts to bar access over existing at-grade railroad crossings. There will need to be improvements to existing interchanges and adequate vehicle crossing over the Truckee River, Truckee-Carson Irrigation District Canal (Figure 3.4-52), and the railroad to sufficiently access this site for major residential, commercial, and industrial development. Canal Road is the only access to 20 residences located along the Truckee-Carson Irrigation District Canal. The road is narrow and has no shoulders between it and moving water. These access issues are complicated and expensive to remedy and should be thought about well in advance of development occurring so that when development is proposed, it will pay a proportionate share in combination with state, federal, and County funds.



Source: Storey County Planning Department 2016

Figure 3.4-51: Painted Rock Bridge



Source: Storey County Planning Department 2016

Figure 3.4-52: Truckee-Carson Irrigation District Canal adjacent to local access road

Interconnectivity

Connecting Painted Rock and other northern communities to Virginia City will become increasingly important as commercial expansion and population growth continue throughout the county. Additionally, if Painted Rock becomes a developed mixed-use community as discussed in this master plan, it will become equally important to improve connection between it and McCarran.

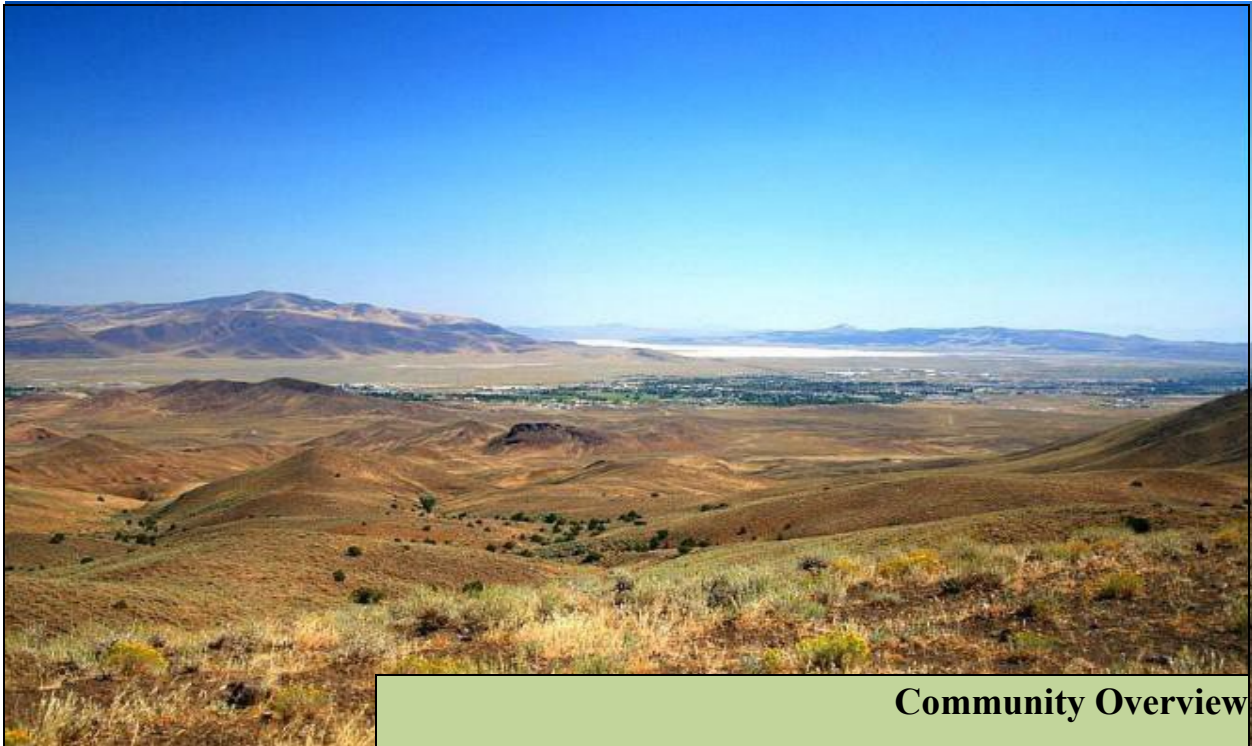
Chapter 8 – Transportation discusses alternative routes connecting different areas of the county that were discussed during the master plan workshops.

County Boundary Line

Storey County's northern boundary is primarily defined by the centerline of the Truckee River. However, over the past century, the alignment of the river has been significantly altered by natural hydraulic and human forces. Uncertainty as to the precise alignment of the northern boundary separating Washoe County and Storey County has, in some cases, caused land use, taxation, and other conflicts. Storey County should collaborate with Washoe County to seek federal funding to survey the river and appropriately map the dividing boundary or change the line to be the Interstate 80 right-of-way instead of the river, which will continue to evolve.

Water rights no longer exist in this area as they have been sold off to developers elsewhere, making the viability of ongoing agricultural development in this area questionable or impossible.

3.4.9 Northeast Area Plan



Community Overview

The Northeast Area is a remote undeveloped area within the northeastern part of the county, south of Painted Rock and extending eastward to the boundary of Storey County and Lyon County. This area includes no residential or commercial development, and the remoteness makes it challenging to provide municipal services. A portion of this area is within lands of the Pyramid Lake Paiute Tribe.

3.4.9.1 Introduction

The Northeast Planning Area includes the northeastern slope of the Flowery and Virginia ranges from McCarran, Mark Twain, and Painted Rock to the boundary of Storey County and Lyon County. It also abuts a portion of the Truckee River at its northern boundary. Much of this area is remote, accessed only by unimproved roads and trails, and it contains no utility distribution infrastructure. Fernley is immediately east of the eastern boundary of this area. Truckee Lane, a dirt road, connects from Fernley to this area. The area is primarily used for open-range grazing and recreation. This area also contains a small area of the Pyramid Lake Paiute Tribe reservation in the extreme northeast part of the county.

3.4.9.2 Future Lands Uses

This area is relatively close to Fernley in Lyon County. Residential development exists in Fernley approximately two miles east of the boundary of Storey County and Lyon County. Because of its location, residential development in this area would impose significant strain on Storey County resources, including fire and law enforcement protection, utility and road maintenance, schools, and other services. With nearby industrial development in Fernley along the Truckee River and the Union Pacific Railroad, and the potential development of the Tahoe-Reno Industrial Center II industrial park in Fernley, this area may be appropriate for future industrial development, especially if a new interchange at Interstate 80 were to be developed. Further away from Fernley, an area of land use transition could be designated to separate rural, undeveloped areas from areas that could be developed along the Northeast area's eastern boundary. Future land uses in the Northeast area are shown in Figure 3.4-53.

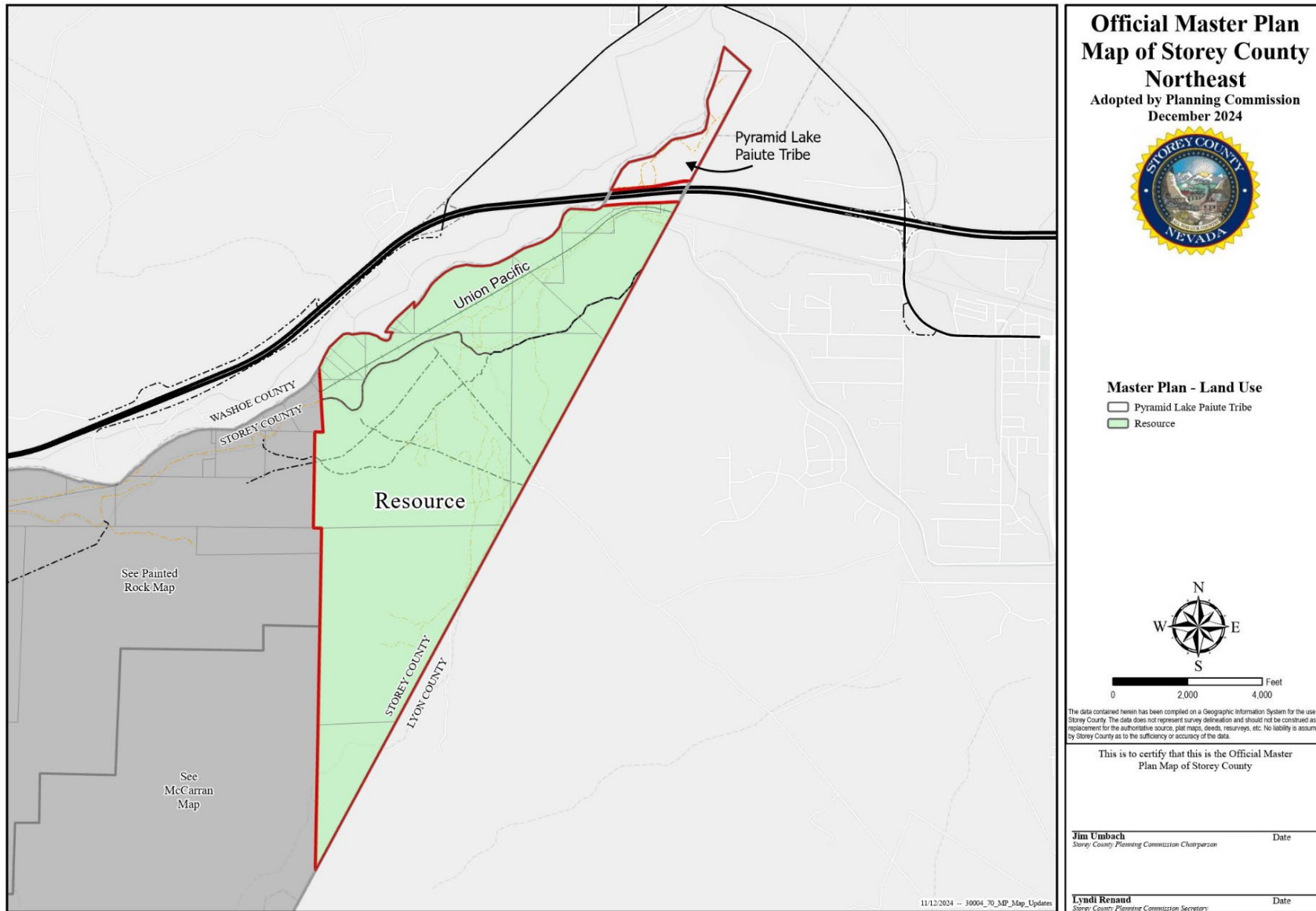


Figure 3.4-53: Master Plan Northeast Planning Area Map

3.4.9.3 Key Issues

Access

Access exists over a few miles of unimproved roads between Painted Rock and Fernley. Many of these roads encroach into private property, including into Union Pacific Railroad rights-of-way. Further exacerbating the situation, the Union Pacific Railroad has employed concerted efforts to remove at-grade railroad crossings in the area without providing alternative means of access.

The County should consider working with land developers, federal grant administrators, and other organizations to improve and provide reliable access to this area. Until improved railroad crossings are developed by the Union Pacific Railroad, the County should strongly protest the company's efforts to bar access over existing at-grade railroad crossings.

County Boundary Line

Section 3.4.8 of this master plan (Painted Rock Area) discusses the inexact location of the boundary line between Washoe County and Storey County, which also applies to this area.

Water Rights and Agriculture Land

Water rights no longer exist in this area, as they have been sold off to developers elsewhere, making the viability of ongoing agricultural development in this area unlikely.

Tribal lands

This plan does not apply to tribal lands; however, the County should continue working with the tribe in land use decisions in this area and build relationships for reciprocal cooperation.

3.5 Goals, Policies, and Objectives



Purpose of Goals, Policies, and Objectives

The purpose of this section is to set forth goals, policies, and objectives for carrying out this master plan. This section is divided into the respective planning areas of the county, as well as the county as a whole.

3.5.1 General Countywide

The following goals, policies, and objectives apply across the county. Each planning area and subarea contains goals, policies, and objectives which are specific to those areas.

Goal 1: Direct and manage orderly, efficient, and sustainable development

Policy	
Policy 1.1	Use this master plan to graphically depict desired land use patterns.
Objectives	
Objective 1.1-1	Define the master plan land use maps as the official maps depicting potential future land uses in the county.

Policy	
Policy 1.2	Maintain an up-to-date master plan.
Objectives	
Objective 1.2-1	Periodically update this master plan and masterplan maps.
Objective 1.2-2	Maintain zoning maps in conformance with this masterplan.
Objective 1.2-3	Regularly communicate with residents, land owners, and businesses to identify needs and respond appropriately and expediently.
Objective 1.2-4	Continually communicate with the Nevada State Demographer Office to determine accurate growth trends and forecasts in the county and region, and use the findings as the basis for updating this master plan

Policy	
Policy 1.3	Involve community stakeholders in the administration and updating of this master plan.
Objectives	
Objective 1.3-1	Make master plan information and maps easily accessible to the public.
Objective 1.3-2	Reach out to community stakeholders and leaders about the provisions of this master plan and general land use trends in the county and in each community
Objective 1.3-3	Hold Planning Commission public meetings in the areas most likely affected by proposed master plan and zoning amendments.

Goal 2: Create and maintain livable and sustainable communities

Policy	
Policy 2.1	Maintain compact communities.
Objectives	
Objective 2.1-1	Concentrate commercial development in defined and planned mixed-use centers.
Objective 2.1-2	Encourage new commercial development as integrated centers, or compatible infill within existing developed communities, rather than as individual or periphery development centers.
Objective 2.1-3	Encourage infill residential development within existing population centers in the county.
Objective 2.1-4	Consider allowing for compact nodal, commercial development by revising development regulations to allow greater building coverage and building heights, where appropriate.
Objective 2.1-5	Revise development codes to have performance-based standards that focus on outcomes and flexibility, rather than contain rigid requirements that necessitate variances.
Objective 2.1-6	Research and evaluate the impact accessory dwelling units have on existing and proposed residential neighborhoods and, if appropriate, determine criteria for inclusion in neighborhoods as accessory versus standalone housing units.
Objective 2.1-7	Research and evaluate the impact of short-term rentals on existing and proposed residential neighborhoods, including the impact of housing availability and price, and the community impacts of housing utilized as a tourism enterprise.
Objective 2.1-8	Continue to explore opportunities for Storey County communities to have a postal zip code that reflects their identity and location within Storey County rather than a neighboring jurisdiction.

Policy	
Policy 2.2	Create and maintain complete communities.
Objectives	
Objective 2.2-1	Facilitate enterprise areas in each community except the Highlands.
Objective 2.2-2	Require planned unit developments to include commercial, residential-commercial, and other uses concentrated into one or more established town enterprise centers, or to be strategically integrated with existing patterns.
Objective 2.2-3	Incorporate open space wildlife migration corridors throughout planned unit developments and align these corridors with existing exterior agriculture, equestrian,

common open-space, public lands, wildlife corridors of adjacent planned unit developments, and known natural wildlife migratory patterns.

Policy	
Policy 2.3	Facilitate pedestrian-friendly communities.
Objectives	
Objective 2.3-1	Situate new residential developments so that enterprise areas, schools, and public gathering places are situated together and easily accessible to the surrounding community.
Objective 2.3-2	Implement walkable systems that connect residential areas with enterprise areas, schools, public gathering areas, and other uses outside of the development.
Objective 2.3-3	Align and design walkways, roads, and other transportation ways to encourage local trips by foot and bicycle, and by horseback as appropriate for the development (e.g., developments with equestrian uses).
Objective 2.3-4	Separate walkways, pathways, and access roads from collector, arterial, and other high-speed traffic routes.
Objective 2.3-5	Avoid grid-pattern roadways, except in Virginia City, and instead configure local roads into loops, cul-de-sacs, and circuitous patterns (with pedestrian connections between) to reduce and slow traffic.
Objective 2.3-6	Design streets around parks, schools, and other public gathering places to be pedestrian-oriented, and with activity areas situated mostly away from vehicleways.
Objective 2.3-7	Situate high-speed, collector, and arterial routes toward the edges of the development, or along existing arterial and collector routes.
Objective 2.3-8	Situate roads to be circuitous and by implementing traffic calming design and devices to slow traffic where close connection between vehicle and non-motorized ways exist.

Policy	
Policy 2.4	Facilitate existing and future automobile-alternative transportation.
Objectives	
Objective 2.4-1	Reserve necessary property, right-of-way, and easements in new planned unit developments to support existing and future pedestrian, bicycle, bus, rail, and other transportation systems.
Objective 2.4-2	Align rights-of-ways and easements for transit systems with existing transit system rights-of-ways, easements, and planned corridors.

Objective 2.4-3	Connect trails in Mustang, McCarran, and Painted Rock to the Tahoe- Pyramid Trail.
Objective 2.4-4	Collaborate with the Union Pacific Railroad, Regional Transportation Commission, Tahoe-Reno Industrial Center, and other agencies and entities to assess and consider the feasibility of light-rail commuter systems utilizing new and existing infrastructure along the Truckee River/Interstate 80 corridor.

Policy

Policy 2.5	Ensure safe and sustainable water resources for each community and natural ecosystem in the county.
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Objectives

Objective 2.5-1	Require minimum flow and quality standards for new wells.
Objective 2.5-2	Require land subdivision applications to include valid documentation showing that underground water resources supporting the development will not adversely impact the availability of quality drinking water for existing and future residents and uses in the area.
Objective 2.5-3	Seek water sources from other jurisdictions and hydrologic basins for the Highlands and Mark Twain Estates.
Objective 2.5-4	Evaluate current and future water supplies in the Virginia City Highlands and Highland Ranches against future development potential.
Objective 2.5-5	Request the Nevada State Engineer to evaluate the Virginia City Highlands and Highland Ranches for future development viability.
Objective 2.5-6	Continue the United States Geological Study groundwater monitoring in the Highlands and potentially expand the study to the Mark Twain Estates.
Objective 2.5-7	Follow the goals and policies of the 2023 Storey County Water Resources Plan with regard to future water and infrastructure development consideration in the Highlands and Mark Twain Estates.
Objective 2.5-8	Protect Storey County’s decreed rights to water from the Marlette Water System.

Policy

Policy 2.6	Design communities which attract diverse people and workforce.
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Objectives

Objective 2.6-1	Provide accessible quality K-12 schools to students in northern Storey County.
Objective 2.6-2	Require developers of planned unit developments to dedicate to the county and/or school district land necessary for public schools and public services.
Objective 2.6-3	Require developers of planned unit developments to build and dedicate to the

	county school district, as agreed between the developer and the school district, K-12 school facilities adequate to serve area populations, as well as other needs determined appropriate by the school district for the subject area.
Objective 2.6-4	Work collaboratively with the school district and its board of trustees during review of proposed subdivisions, housing projects, and planned unit developments in order to consider what level and type of education and supporting facilities may be required.
Objective 2.6-5	Create a physical environment in planned unit developments that facilitates education facilities and curriculum possibilities as directed by the school board.
Objective 2.6-6	Create a physical environment in planned unit developments that facilitates education facilities and curriculum beyond K-12 education, including for instance, pre-kindergarten, vocational, and post-secondary education, which is aligned with the needs of area employers.
Objective 2.6-7	Create a physical environment in planned unit developments in which schools may relate to the surrounding community functionally, culturally, and visually, and where schools may incorporate the greater community into the education process.
Objective 2.6-8	Form an advisory group between the County and the school district, consisting of a broad representation of well-respected people in their fields of expertise and who are recognized for their leadership and commitment to improving schools, to ensure that the location, placement, and design of school facilities meets the goals of this master plan, and the school district’s needs which extend beyond the jurisdiction of this master plan.

Policy	
Policy 2.7	Facilitate phasing of planned unit developments that ensures project completion and sustainability during phasing.
Objectives	
Objective 2.7-1	Meet changing market conditions while ensuring that improvements meet demands for infrastructure and service.
Objective 2.7-2	Encourage the use of development agreements.
Objective 2.7-3	Phase planned development projects so that they function effectively and independently at each phase.
Objective 2.7-4	Ensure that any development agreement is consistent with tentative and final maps and the provisions of this masterplan.
Objective 2.7-5	Require terms and plans for potential abandonment or termination of developments prior to their completion.
Objective 2.7-6	Support infrastructure through Special Assessment Districts and other available funding mechanisms.

Goal 3: Create and maintain a diversified economy.

Policy	
Policy 3.1	Support a wide range of industries across the county including agriculture, commercial, tourism, manufacturing, mining, distribution, and technology.
Objectives	
Objective 3.1-1	Work with regional and local economic development agencies and community groups to identify economic assets and development opportunities.
Objective 3.1-2	Communicate with regional partners to improve local and regional industrial databases to improve vertical integration and production efficiencies.
Objective 3.1-3	Encourage and identify opportunities for co-location and close proximity placement of complementary businesses.
Objective 3.1-4	Establish zoning districts, where appropriate, supporting commercial and other economic uses.
Objective 3.1-5	Promote mixed-use developments that support live-work environments and community diversity.
Objective 3.1-6	Preserve water rights for agricultural use and encourage alternative agriculture practices and water use.
Objective 3.1-7	Evaluate agricultural land for potential estate residential or other designations that complement and improve the Truckee River riparian environment.

Policy	
Policy 3.2	Maintain streamlined and efficient application and approval processes.
Objectives	
Objective 3.2-1	Maintain simple and streamlined development applications.
Objective 3.2-2	Maintain and improve “one-stop-shop” permitting and development review as feasible.
Objective 3.2-3	Revise development codes to allow for the creation of livable and sustainable communities.
Objective 3.2-4	Encourage development agreements between the County and certain land developers.

Goal 4: Create integrated public facilities.

Policy	
Policy 4.1	Provide efficient and reliable public services by combining emergency response and public services into a unified public facility centrally located in communities.
Objectives	
Objective 4.1-1	Include representatives from emergency response, general public services, school district, and non-profits on an advisory group during the planned unit development process, to ensure that combined facilities and services, including those combined with public schools, are designed and placed properly and meet the needs of the community.
Objective 4.1-2	Coordinate efforts with federal and state agencies such as the U.S. Department of Housing and Urban Development, U.S. Department of Agriculture Rural Development, and the Nevada Rural Housing Authority to help fund rehabilitation of abandoned and substandard dwellings.
Objective 4.1-3	Situate a future fire station in the Mark Twain-Flowery Range Area so that it meets five-mile Insurance Service Office (ISO) distance from existing and future communities.

Goal 5: Maintain distinct communities in the county.

Policy	
Policy 5.1	Create and maintain distinct land use patterns and characteristics for each community in the county.
Objectives	
Objective 5.1-1	Use this master plan to pattern uses which are consistent with the distinct character of each existing and new community in the county.
Objective 5.1-2	Conform to the goals, policies, and objectives for each planning area and sub- area in this master plan.
Objective 5.1-3	Only approve land uses which are compatible with the community in which they are proposed and their surrounding communities.

Goal 6: Maintain compatibility between uses.

Policy	
Policy 6.1	Implement design and performance standards that minimize use conflicts.
Objectives	
Objective 6.1-1	Design specific areas where mixed-use residential-commercial uses are appropriate in relation to the new development and the existing surrounding community in planned unit developments.
Objective 6.1-2	Update the County-established design and performance standards for commercial, industrial, residential, and other uses located within or adjacent to existing communities, and new communities, to ensure that future development is high in quality, desirable for occupants, and compatible with existing surrounding uses. The design standards should address lot size and density; building scale, bulk, height, and setbacks; building materials and exterior aesthetics; buffering to abutting uses (including, but not limited to, density transitions); outdoor lighting and noise; vehicle loading, parking, and circulation; pedestrian circulation; landscaping; screening and fencing; accessibility to people with disabilities; and other elements.
Objective 6.1-3	Prevent the overconcentration of multi-family residential uses, and instead mix income in any given area and disperse these uses through mixed-use design.
Objective 6.1-4	Review proposed infrastructure improvements including roads and transportation connections, potential unintended impacts to adjacent communities, and weigh them against the potential benefits of the infrastructure improvements.
Objective 6.1-5	Actively engage with the Bureau of Land Management and the local property owners and their associations to maintain public access to public lands within and adjacent to the Highlands.
Objective 6.1-6	Engage in cooperative agency status with the Bureau of Land Management in all environmental assessments and other actions potentially affecting communities in the county.

Goal 7: Reduce and prevent blight

Policy	
Policy 7.1	Develop and enforce codes preventing and addressing nuisances and blight.
Objectives	
Objective 7.1-1	Enforce nuisance and blight regulations consistently and fairly.
Objective 7.1-2	Educate residents about available assistance and programs aimed at cleaning

	properties and abating nuisances and related hazards.
Objective 7.1-3	Coordinate efforts with area resources, including Waste Management, Inc., to provide annual programs for no-cost refuse disposal and other such assistance.
Objective 7.1-4	Coordinate efforts with federal and state agencies such as the U.S. Department of Housing and Urban Development, United States Department of Agriculture Rural Development, and Nevada Rural Housing Authority to help fund rehabilitation of abandoned and substandard dwellings.

Goal 8: Balance renewable energy systems with other uses.

Policy	
Policy 8.1	Support the development of certain renewable energy systems while preserving quality of life in residential areas.
Objectives	
Objective 8.1-1	Allow small-scale domestic renewable energy systems, including solar and wind, when they are found to be scaled, placed, and designed as to not substantially detract from the existing character of each community.
Objective 8.1-2	Prohibit commercial-scale renewable energy systems, including solar and wind, in and adjacent to residential areas.
Objective 8.1-3	Require Planning Commission and Board review and action pertaining to all commercial-scale renewable energy systems.

Goal 9: Balance mining and non-mining uses.

Policy	
Policy 9.1	Support development of mineral resources while mitigating negative impacts to non-mining uses.
Objectives	
Objective 9.1-1	Maintain standards and policies concerning mineral development in all parts of the county.
Objective 9.1-2	Maintain standards that substantially limit surface mining, but provide for small operations phased surface mining, and encourage underground mining in sensitive areas of the county.
Objective 9.1-3	Require Board approval with action by the Planning Commission for all large scale surface and underground mining applications.
Objective 9.1-4	Refrain from duplicating permit application requirements and fees which have been

established by state and federal agencies.

Objective 9.1-5 Maintain proactive and collaborative relationships between County officials, mining interests, residents, and local stakeholders in mining permits and mine ordinance developments to assure compliance with local, state, and federal requirements pertaining to active and proposed mining operations.



Source: Storey County 2014

3.5.2 Comstock Area

Goal 1: Enhance and diversify the local economy

Policy	
Policy 1.1	Promote commercial business in Gold Hill, Virginia City, and The Divide that serves the specific interests and needs of tourists and local residents.
Objectives	
Objective 1.1-1	Access grants, federal appropriations, and other federal and state fiscal resources.
Objective 1.1-2	Assess needs and interests of residents, businesses, and stakeholders through formal and informal communication, and assist local businesses.
Objective 1.1-3	Coordinate the master plan, zoning ordinances, and county codes with the regulations and programs of the local tourism commission.
Objective 1.1-4	Design the master plan, zoning ordinances, and county codes to reduce barriers toward expansion of needed businesses and services.
Objective 1.1-5	Assess the benefits and limitations of establishing a downtown revitalization redevelopment district that increases eligibility for grants, other funding sources, and programs to improve the downtown business district.
Objective 1.1-6	Work with the Virginia City Tourism Commission to enhance the image and

significance of the south and north gateway areas of Virginia City and Gold Hill.

Policy	
Policy 1.2	Secure local control from the Nevada Department of Transportation portions of State Route 341 (C Street) within Virginia City’s downtown area.
Objectives	
Objective 1.2-1	Work with the Nevada Department of Transportation to convey to Storey County State Route 341 right-of-way between north and south intersecting B Street.
Objective 1.2-2	Do not accept conveyance of portions of State Route 341 to Storey County until curbs, gutters, drainages, and pavement are improved to Storey County standards.

Policy	
Policy 1.3	Develop a fairgrounds facility in Virginia City that is permanent and sufficient in area and designed to facilitate existing and future events.
Objectives	
Objective 1.3-1	Develop sufficient parking, vehicle and trailer staging, domestic animal stables, and other related uses.
Objective 1.3-2	Improve road and pedestrian ways and other infrastructure around the fairgrounds facility, and between it and downtown Virginia City.
Objective 1.3-3	Continue to explore opportunities for Storey County communities to have a postal zip code that reflects their identity and location within Storey County rather than a surrounding jurisdiction.
Objective 1.3-4	Develop OHV facilities that encourage use of public land and discourages trespassing on private property.

Goal 2: Maintain historic use patterns in the Comstock area

Policy	
Policy 2.1	Implement zoning, regulations, and practices to maintain conformance with historic use patterns.
Objectives	
Objective 2.1-1	Implement Form-Based-Codes in the Virginia City downtown area, requiring building location, placement, configuration, height, and scale which is consistent with adjacent conditions.

Objective 2.1-2	Coordinate with the Comstock Historic District Commission in the development of Form-Based-Codes applicable within the Comstock area.
Objective 2.1-3	Encourage commercial, residential-commercial, single-family residential, multi-family residential, and mixed-uses in the core areas of Gold Hill, Virginia City, and The Divide.
Objective 2.1-4	Maintain single-family residential uses in areas of Virginia City, Gold Hill, and The Divide currently and historically used principally with such uses.
Objective 2.1-5	Prevent residential sprawl into outlying areas of the Comstock area, particularly in the surrounding hillsides which are directly visible from the Virginia City downtown area, that were not historically developed with residential uses.
Objective 2.1-6	Allow reduced setback distances for single-family and multi-family residential uses in the Virginia City downtown area that are consistent with commercial uses.
Objective 2.1-7	Preserve the natural and historic scenic corridor along State Route 341 and State Route 342 between the Washoe and Lyon county lines.
Objective 2.1-8	Preserve to the extent feasible historic landforms including mine tailings and mine dumps.
Objective 2.1-9	Replace conventional “cobra-head” overhead streetlights with decorative and historically appropriate street lamps, such as those currently found along C Street in Virginia City. First priority should be given to the length of B Street between Taylor Street and the north side of the Eagles Hall.
Objective 2.1-10	Require sidewalks along C Street in downtown Virginia City to be constructed of wood except where motor vehicle access is provided to street-abutting driveways and parking areas or in areas where determined not to be historically appropriate with consultation from the Comstock Historic District Commission. Decorative pavers and/or other materials as permitted by the Comstock Historic District Commission should be considered where existing non-wood materials (e.g., concrete and asphalt) are being replaced.

Goal 3: Provide for certain renewable energy that is compatible with other uses in the Comstock Historic District

Policy	
Policy 3.1	Support the development of certain renewable energy systems while preserving the integrity of the historic district, including its feeling of place and authenticity within the context of the nineteenth century.
Objectives	
Objective 3.1-1	Allow small-scale domestic renewable energy systems, including solar and wind, when they are found to be scaled, placed, and designed as to not aesthetically detract from abutting uses and the overall historic environment of the Comstock Historic

	District.
Objective 3.1-2	Prohibit commercial/utility-scale renewable energy systems, including solar and wind, within the boundaries of the Comstock Historic District.
Objective 3.1-3	Require Planning Commission and Board review and action pertaining to all proposed domestic renewable energy systems, including solar and wind, within the Comstock Historic District, and all commercial/utility-scale systems outside of the historic district.
Objective 3.1-4	Coordinate with the Comstock Historic District Commission in the review of all renewable energy systems, including solar and wind, proposed within the Comstock Historic District.

Goal 4: Balance mining and non-mining uses

Policy	
Policy 4.1	Support the development of mineral resources while mitigating negative impacts to non-mining land uses and historic resources.
Objectives	
Objective 4.1-1	Maintain standards and policies concerning mineral development in and near the Comstock Historic District which are distinct from development standards in other areas of the county.
Objective 4.1-2	Maintain standards that substantially limit surface mining, but provide for small operations phased surface mining, and encourage underground mining in Gold Hill, Virginia City, The Divide, and their immediate surrounding areas.
Objective 4.1-3	Consider southern Gold Hill (approximately south of Sky Lane) for appropriately regulated large-scale surface and other types of mining when substantial impacts to area residents and the integrity of the Comstock Historic District are not found.
Objective 4.1-4	Require Board approval with action by the Planning Commission for all large scale surface and underground mining applications.
Objective 4.1-5	Refrain from duplicating permit application requirements and fees which have been established by state and federal agencies.
Objective 4.1-6	Maintain proactive and collaborative relationships between County officials, mining interests, residents, and local stakeholders in mining applications and ordinance development to assure compliance with local, state, and federal requirements pertaining to active and proposed mining operations.

Goal 5: Enhance and diversify vehicular and multi-modal transportation

Policy	
Policy 5.1	Continue development patterns that provide for a walkable community.
Objectives	
Objective 5.1-1	Encourage historically dense mixed-use commercial and residential development in the core areas of Gold Hill, Virginia City, and The Divide..

Policy	
Policy 5.2	Acquire necessary property, right-of-way, and easements to develop vehicular parking and multi-modal transportation systems.
Objectives	
Objective 5.2-1	Inventory vacant land adjacent to the Virginia City downtown area that may facilitate centralized vehicular parking and transit systems.
Objective 5.2-2	Consider opportunities to purchase appropriate vacant land to facilitate centralized vehicular parking and transit systems.

Policy	
Policy 5.3	Improve identified properties to facilitate vehicular parking and multi-modal transportation systems.
Objectives	
Objective 5.3-1	Repurpose the historic Virginia City Freight Depot.
Objective 5.3-2	Repurpose the parcels between the Virginia City Freight Depot and Union Street to facilitate vehicular parking, rail service, bus service, and multi-modal transportation support systems.
Objective 5.3-3	Complete a comprehensive vehicle parking and circulation study for Virginia City.

Policy	
Policy 5.4	Develop alternative transit systems between centralized transit hubs and the downtown area of Virginia City.

Objectives	
Objective 5.4-1	Develop appropriate transit stops to facilitate transit to and from C Street.
Objective 5.4-2	Develop inclinator between C Street and the Virginia City Freight Depot and other centralized transit staging areas.

Goal 6: Facilitate a safe pedestrian-friendly downtown

Policy	
Policy 6.1	Improve pedestrian corridors including sidewalks and street crossings.
Objectives	
Objective 6.1-1	Relocate a substantial portion of vehicular parking away from C Street and toward centralized parking areas.
Objective 6.1-2	Enhance vehicle and pedestrian visibility at key road crossings on C Street.
Objective 6.1-3	Develop walkways and stairways, and develop visual and other separation between pedestrian and vehicle ways, on east-west orientated streets near C Street.
Objective 6.1-4	Consider revisions to the intersections of Taylor, Union, and C Streets for safer pedestrian and vehicle crossing.

Policy	
Policy 6.2	Provide rest areas in key places around pedestrian corridors and parking areas.
Objectives	
Objective 6.2-1	Add sitting benches and tables along the C Street boardwalk.
Objective 6.2-2	Add sitting benches between remote vehicle parking areas and C Street, and in parking lots.
Objective 6.2-3	Secure funds to develop “pocket-parks” on vacant parcels along C Street in downtown Virginia City.



Source: Storey County Planning Department 2015

3.5.3 Highlands Area

Goal 1: Preserve the rural residential character of the Highlands area

Policy	
Policy 1.1	Implement zoning and other regulations in and around the Highlands planning area that conform to historic use patterns.
Objectives	
Objective 1.1-1	Maintain estate and rural single-family residential uses and zoning in the Highlands and rural residential uses and zoning in surrounding areas where residential uses may be considered.
Objective 1.1-2	Prevent retail and other commercial uses in the Highlands and its immediate surrounding areas with exception of home-based enterprises, as appropriate, to maintain existing area character.
Objective 1.1-3	Explore conservation potential for existing parcels that allows for wildlife enhancement and promotes lower water usage for the Highlands Plan Area.

Policy	
Policy 2.1	Ensure use consistency between the Highlands and its surrounding lands.
Objectives	
Objective 2.1-1	Assess adverse impacts, including traffic, safety, noise, light pollution, wildland fire risk, and attraction of other undesirable development that a north-south transportation interconnection may have on the Highlands community before such a project is considered.
Objective 2.1-2	Maintain minimum required parcel size of one acre for the Virginia City Highlands, ten acres for the Highland Ranches, and 40 acres for the Virginia Ranches.
Objective 2.1-3	Maintain minimum parcel size of 40 acres for parcels surrounding the Highlands including, but not limited to, the Sunny Hills Ranchos.
Objective 2.1-4	Coordinate with entities proposing and planning east-west connector roads north of the Highlands to ensure least impactful alignment to the Highlands and to mitigate potential noise, light, pollution, wildland fire risk, off-highway-vehicle staging and access affecting the Highlands.

Goal 2: Preserve and enhance the natural beauty of the Highlands and surrounding areas

Policy	
Policy 1	Provide for land uses which are compatible with the Highlands area.
Objectives	
Objective 2.1-1	Adopt development codes that mitigate visual and adverse impacts of developments on moderate to steep slopes (slopes greater than ten percent).
Objective 2.1-2	Coordinate with landowners to implement fire fuels reduction programs.
Objective 2.1-3	Coordinate with local property owners associations in the development of standards for special use permits, zone changes, and other planning applications potentially affecting the Highlands.



Source: Storey County Planning Department 2015

3.5.4 Mark Twain-Flowery Range Area

Goal 1: Preserve rural character of the Mark Twain-Estates

Policy	
Policy 1.1	Make land use decisions that maintain the existing character of the community..
Objectives	
Objective 1.1-1	Maintain estate residential uses in the Mark Twain Estates, and rural residential uses surrounding the Mark Twain Estates Subdivision.
Objective 1.1-2	Prevent encroachment of suburban residential sprawl into Mark Twain Estates Subdivision through the application of a buffer between existing neighborhoods and any new land uses, by separating new residential developments from existing developments through density transitioning, open space, passive recreation areas, cemeteries, stormwater drainage and detention, and other open space areas.
Objective 1.1-3	Require transitions in density that match existing density patterns, and gradually change to different densities as distance increases from existing development.

Objective 1.1-4 Adopt codes and zoning regulations and making decisions on land use applications that protect the existing character, environmental conditions, security and safety, aesthetic conditions, and efficient services of the Mark Twain-Flowery Range Area.

Policy

Policy 1.2 Facilitate complementary interface between adjacent residential and non- residential uses allowed by this master plan.

Objectives

Objective 1.2-1 Adopt zoning and development standards that lessen impacts between residential and non-residential uses including:

- a. Distances and buffering
- b. Density transitioning
- c. Landscaping, screening, noise abatement, and outdoor lighting
- d. Vehicle access, egress, parking, and on-site circulation Property management through owners associations, Covenants, Conditions, and Restrictions, etc.
- e. Placement of buildings and structures such as to reduce direct visual impacts to area residences, and cause blending with the surrounding natural environment, including backdrop mountain vistas.

Goal 2: Prevent land use conflicts with existing mining

Policy

Policy 2.1 Develop and implement land use allowances and regulations that maintain separation between existing mining and future residential and other incompatible uses.

Objectives

Objective 2.1-1 Maintain significant separation between the Basalite mine and residential and other uses which are incompatible with mining activities.

Objective 2.1-2 Encourage rezoning of land around existing mining activities to Industrial Professional land uses or resource type designations.

Goal 3: Minimize flooding and flood damage in the Mark Twain-Flowery Range Area

Policy	
Policy 3.1	Implement improvements including those documented in the Dayton Valley Area Drainage Master Plan to lessen property damage caused by flash flooding.
Objectives	
Objective 3.1-1	Collaborate and negotiate with private property owners for the establishment drainage and stormwater detention basin easements.
Objective 3.1-2	Collaborate and negotiate with private property owners immediately north of the Mark Twain-Flowery Range Area to establish easements or acquire property for regional stormwater detention improvements.
Objective 3.1-3	Design stormwater drainage systems capacities in accordance with upstream stormwater detention systems.
Objective 3.1-4	Require regional flood detention and downstream mitigation for land subdivisions and developments north and west of the Mark Twain-Flowery Range Area, and in other newly developed areas.

Policy	
Policy 3.2	Prevent development in known floodways.
Objectives	
Objective 3.2-1	Develop and implement building codes restricting buildings within known floodways.
Objective 3.2-2	Educate residents about the impacts and dangers of building in floodways and floodplains.
Objective 3.2-3	Consider cooperative establishment of drainage easements.

Policy	
Policy 3.3	Consider the benefit of regional flood planning.
Objectives	
Objective 3.3-1	Continue active participation with the Carson Water Subconservancy District Carson River Watershed regional floodplain management studies and planning processes.

Goal 4: Enhance local and regional economic opportunity

Policy	
Policy 4.1	Promote commercial and industrial uses adjacent to the existing Basalite mining activities to act as a buffer between mining activities and residential neighborhoods.
Objectives	
Objective 4.1-1	Develop a subarea plan for the Mark Twain-Flowery Range Area showing potential new residential and non-residential areas, roads alignments, public service facilities, and relationship with abutting Lyon County land uses.
Objective 4.1-2	Consider retail, service, and other commercial uses away from the Mark Twain Estates but serving the greater region.

Goal 5: Encourage Residential planned unit development(s) in the Flowery Range Area

Policy	
Policy 5.1	Planned unit developments should provide a buffer/transition from existing adjacent land uses.

Policy	
Policy 5.2	Planned unit developments should offer a variety of housing types and densities.

Policy	
Policy 5.3	New development in planned unit developments should coordinate the proposed street system with existing roads including those in Lyon County.
Objectives	
Objective 5.3-1	Assess needs and interests of residents, businesses, and stakeholders in the area, including in adjacent Lyon County, through formal and informal communication.

Policy	
Policy 5.4	Permit planned unit developments to offer neighborhood commercial services.
Objectives	

Objective 5.4-1 Design the master plan, zoning ordinances, and county codes so that they support expansion of all needed businesses and services for the region.

Policy

Policy 5.5 Participate in overall drainage planning for the Mark Twain-Flowery Range Plan Area.

Policy

Policy 5.6 Planned unit developments should be designed to avoid negative impacts to the existing Mark Twain Estates rural residential designation.



Source: Rainbow Bend Homeowners Association 2012

3.5.5 Lockwood-Mustang Area

Goal 1: Maintain a community with diverse uses

Policy	
Policy 1.1	Implement zoning, regulations, and practices that diversify uses.
Objectives	
Objective 1.1-1	Encourage commercial and residential uses which are compatible with existing uses and community character and scale.
Objective 1.1-2	Promote and direct commercial activity along Canyon Way, Menzes Way, and within the eastern portions former Peri Ranch.

Goal 2: Reduce and prevent use compatibility conflicts

Policy	
Policy 2.1	Promote uses and performance measures which mitigate known and potential conflicts between existing and new uses.
Objectives	
Objective 2.1-1	Actively engage county leaders and officials with commercial interests, residents, and local stakeholders in order to assure conformance with local regulations and this master plan.
Objective 2.1-2	Support proposals for zone changes that lessen or mitigate known conflicts.
Objective 2.1-3	Maintain buffering between residential and non-residential uses.
Objective 2.1-4	Apply density transitions and compatible uses between existing residential uses and new uses, including new residential and non-residential uses.
Objective 2.1-5	Direct heavy industrial activity away from Lockwood and east toward Mustang Road, south toward the Lockwood Regional Landfill, and west toward Menzes Way and its existing heavy industrial uses and zones.
Objective 2.1-6	Encourage zone changes in transition areas that are consistent with the master plan maps.

Policy	
Policy 2.2	Prevent and mitigate inconsistent uses on vacant land located across the Truckee River immediately north of Lockwood.
Objectives	
Objective 2.2-1	Participate in the public process for master planning, zoning, special uses, variances, or other land use actions involving the subject land.
Objective 2.2-2	Request the State Land Use Planning Advisory Council to review neighboring county master plan inconsistencies involving the subject land.
Objective 2.2-3	Collaborate with the subject property owner and neighboring jurisdictions to determine the possibility of annexing the land into Storey County, and any terms that may come with such an annexation.
Objective 2.2-4	Follow the legislative process for transfer of land from Washoe County to Storey County.
Objective 2.2-5	If annexation occurs, apply zoning that is compatible with Lockwood and the adjacent Rainbow Bend community.

Policy	
Policy 2.3	Prohibit brothels and adult entertainment uses.
Objectives	
Objective 2.3-1	Prohibit brothels, adult entertainment, adult retail, and other adult uses in Mustang and Lockwood.

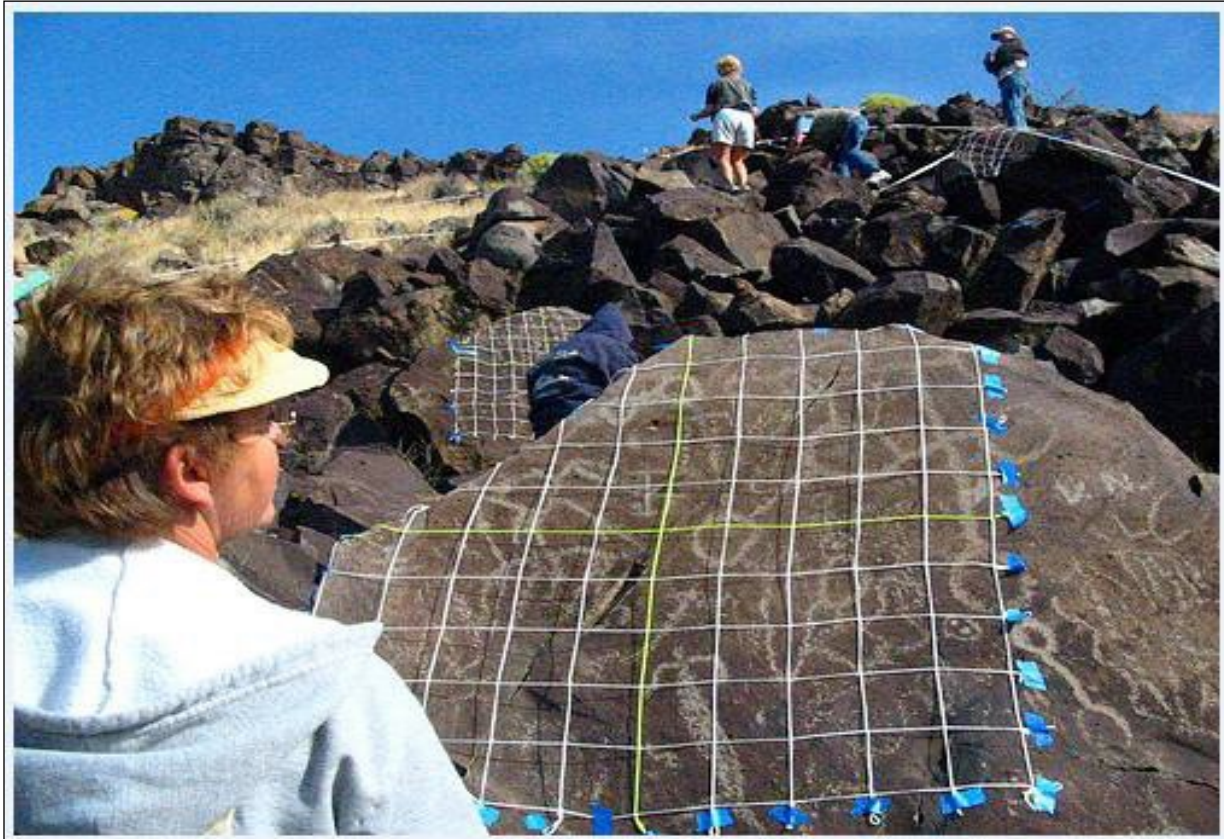
Goal 3: Better integrate the Truckee River into Lockwood and Mustang

Policy	
Policy 3.1	Enhance the river environment for local residents.
Objectives	
Objective 3.1-1	Improve access to the Truckee River for local residents.
Objective 3.1-2	Improve recreation opportunity along the Truckee River for local residents.
Objective 3.1-3	Preserve and enhancing natural river alignment and riparian alignment.
Objective 3.1-4	Require new land developments abutting the Truckee River to integrate the river environment into the design of new land developments through the application of parks and recreation spaces that enable accessibility to the river for occupants of the development and the public.

Goal 4: Explore alternatives for secondary emergency access for the Lockwood Community

Policy	
Policy 4.1	Research alternative routes for emergency access when Interstate 80 is closed or access to Interstate 80 is cut off (flooding conditions, fire, Interstate 80 accidents).

Policy	
Policy 4.2	Explore emergency access alternatives that may only be available to the Lockwood community and discourage alternative routes for Interstate 80 users.



Source: Nevada Rock Art Foundation 2015

3.5.6 Lagomarsino Area

Goal 1: Diversify uses and reduce conflicts

Policy	
Policy 1.1	Implement zoning, regulations, and practices that maintain a diversity of uses and reduce conflicts.
Objectives	
Objective 1.1-1	Ensure that uses in the area are compatible with heavy and high-intensity industrial uses.
Objective 1.1-2	Prevent residential development in the Lagomarsino area, except for the area immediately south and abutting the Highlands (known as the Sunny Hills Ranchos) where rural residential (40 acre minimum) uses are allowed.

Objective 1.1-3	Require 40-acre minimum parcel size throughout the Sunny Hills Ranchos.
Objective 1.1-4	Concentrate heavy and high-intensity industrial uses in areas already designated for such uses.
Objective 1.1-5	Maintain extensive buffer areas for uses on lands zoned for high-intensity industrial uses.
Objective 1.1-6	Communicate with the Highlands property owners associations and residents when considering master plan amendment, zone change applications, special use permits, other planning applications, and road infrastructure improvements, in the Lagomarsino area where the Highlands may be potentially impacted by the use.

Policy	
Policy 1.2	Ensure that regional transportation improvements do not adversely impact the Highlands and Lockwood-Mustang areas.
Objectives	
Objective 1.2-1	Assess adverse impacts, including traffic, safety, noise, light pollution, wildland fire risk, and undesirable uses, that a north-south and east-west transportation interconnection may have on the Highlands community before such a project is considered.
Objective 1.2-2	Coordinate with entities proposing an east-west connector between Washoe County and the Tahoe-Reno Industrial Center to ensure that road alignments do not adversely impact the Highlands, the Petroglyphs site and other cultural resources, and wildlife.

Policy	
Policy 1.3	Encourage regional transportation and utility services routes to develop with the least amount of negative impact to the natural environment.
Objectives	
Objective 1.3-1	Coordinate transportation and utility transmission lines so that they follow or share similar corridors.
Objective 1.3-2	Partner with transportation and utility corridors to avoid and minimize impacts to cultural sites and to protect these resources.
Objective 1.3-3	Require that utility corridors are buffered from existing residential areas.
Objective 1.3-4	Where possible, incorporate wildlife corridors in the design of transportation and utility corridors.



Source: SJS Commercial Real Estate, Inc. 2016

3.5.7 McCarran Area

Goal 1: Comply with the Development Agreement dated February 1, 2000, as amended, between Storey County and Tahoe-Reno Industrial Center, LLC regarding all development and uses in the Tahoe-Reno Industrial Center

Policy	
Policy 1.1	Implement the zoning, regulations and other provisions incorporated by and contained in the Development Agreement, which govern over conflicting provisions of the existing Storey County Master Plan and Zoning Ordinances.
Objectives	
Objective 1.1-1	Implement the 1999 edition of the Storey County Zoning Ordinance.
Objective 1.1-2	Do not apply county ordinances, policies, and regulations enacted after the date of the Development Agreement which are more burdensome to development and uses in Tahoe-Reno Industrial Center than those in existence as of said date.
Objective 1.1-3	Implement the special provisions of the Development Agreement regarding development.
Objective 1.1-4	Implement a comprehensive drainage study at the Tahoe-Reno Industrial Center that increases predictability and efficiency for the County and land developers.

Goal 2: Diversify uses

Policy	
Policy 2.1	Implement zoning, regulations, and practices which diversify commercial and industrial uses.
Objectives	
Objective 2.1-1	Encourage and attract high-technology and experimental industries, and commercial uses, in addition to distribution and manufacturing.
Objective 2.1-2	Attract commercial uses and services.
Objective 2.1-3	Prevent residential development in McCarran, except for rural residential uses existing at the time of this master plan adoption and located toward McCarran’s western periphery outside of the boundaries of the Tahoe-Reno Industrial Center.
Objective 2.1-4	Conform to the Storey County/Tahoe-Reno Industrial Center Development Agreement (2000) on land subject to the agreement.
Objective 2.1-5	Ensure that uses surrounding the land subject to the development agreement do not conflict with the provisions and allowed uses in the Storey County/Tahoe-Reno Industrial Center Development Agreement.

Goal 3: Facilitate transportation infrastructure for existing and future uses

Policy	
Policy 3.1	Improve Patrick Interchange in order to accommodate existing and anticipated traffic loads.
Objectives	
Objective 3.1-1	Submit comments to the Nevada Department of Transportation encouraging the state agency to prioritize improvements to the interchange.
Objective 3.1-2	Participate with the Nevada Department of Transportation in changes to the Statewide Transportation Improvement Plans and other planning efforts.
Objective 3.1-3	Collaborate with officials from the neighboring jurisdictions, including the Regional Transportation Commission, to plan and develop mutually-beneficial transportation connections and routes in the Patrick and USA Parkway Interchange areas for both jurisdictions.
Objective 3.1-4	Coordinate with the Nevada Department of Transportation and neighboring jurisdictions in alignments of future roads situated north of the industrial center and Interstate 80.

Policy	
Policy 3.2	Improve efficiency and safety on local roads.
Objectives	
Objective 3.2-1	Improve the capacity of Waltham Way and Patrick Interchange.
Objective 3.2-2	Promote practical alternative group transportation systems such as commuter vanpools.

Policy	
Policy 3.3	Assess the feasibility of alternative multi-modal transportation systems.
Objectives	
Objective 3.3-1	Evaluate the benefits, limitations, and practicality of bus and other mass transit systems in McCarran.
Objective 3.3-2	Evaluate the benefits, limitations, and practicality of connecting McCarran to area multi-modal transportation systems.
Objective 3.3-3	Collaborate with the Union Pacific Railroad, the Nevada Department of Transportation, Washoe County, the Regional Transportation Commission, the Tahoe-Reno Industrial Center, and other agencies and entities to establish light-rail commuter systems utilizing new and existing infrastructure.

Policy	
Policy 3.4:	Consider alternative access between McCarran and Painted Rock.
Objectives	
Objective 3.4-1	Assess possible vehicular transportation routes between McCarran and Painted Rock.

Policy	
Policy 3.5	Plan for future alternative transportation systems.
Objectives	
Objective 3.5-1	Assess the feasibility of and planning for the potential development of bus, rail, bicycle, and other modes of transportation.
Objective 3.5-2	Assess existing and needed drainage system(s) for Storey County roadways and land within the Tahoe-Reno Industrial Center.

Goal 4: Protect and enhance the Truckee River natural environment

Policy	
Policy 4.1	Prevent degradation of the Truckee River and its surrounding riparian environment.
Objectives	
Objective 4.1-1	Prevent development in the riparian and agricultural areas of the Truckee River without appropriate mitigation.
Objective 4.1-2	Maintain and enforce building codes and the County's floodplain ordinance restricting building in known floodplains and floodways.
Objective 4.1-3	Preserve and enhance natural river alignment and the riparian environment.



This image portrays the built living environment that a planned unit development in Painted Rock should achieve. *Source: American Planning Association (APA), North Carolina Chapter, "Great Places," 2015*

3.5.8 Painted Rock Area

Goal 1: Diversify uses and reduce conflicts

Policy	
Policy 1.1	Implement zoning, regulations, and practices which diversify uses and reduce conflicts.
Objectives	
Objective 1.1-1	Use this master plan to guide planned unit developments which are compatible with the existing rural residential and agricultural uses and character of the area.
Objective 1.1-2	Regulate development in riparian and agricultural lands to preserve these resources unless infrastructure is available or can be made available to serve these areas and environmental impacts are offset.
Objective 1.1-3	Concentrate new development toward the Virginia Range foothills south of the Carson-Truckee Irrigation District canal.

Objective 1.1-4	Require residential land subdivision to go through the planned unit development process.
Objective 1.1-5	Maintain estate and rural residential uses in areas already designated and used as such.
Objective 1.1-6	Maintain layout, design, and density buffering between existing and new uses that minimizes conflicts between them.
Objective 1.1-7	Incorporate a variety of lot sizes and housing styles in planned unit developments.
Objective 1.1-8	Incorporate recreational facilities and corridors throughout planned unit developments, and align these corridors with existing exterior agriculture, equestrian, common open-space, and public lands areas.
Objective 1.1-9	Incorporate open space wildlife migration corridors throughout planned unit developments, and align these corridors with existing exterior agriculture, equestrian, common open-space, public lands, wildlife corridors of adjacent planned unit developments, and known natural wildlife migratory patterns.

Goal 2: Enhance accessibility to the McCarran employment area

Policy	
Policy 2.1	Consider and develop alternative access between Painted Rock and McCarran.
Objectives	
Objective 2.1-1	Analyze the feasibility of a direct vehicular and multi-modal transportation route between Painted Rock and McCarran.
Objective 2.1-2	Act on the findings of the feasibility study for the development of a direct transportation connection between Painted Rock and McCarran at such time that an application for a planned unit development is being considered.



Source: Storey County Planning Department 2016

3.5.9 Northeast Area

Goal 1: Minimize impacts to available infrastructure and resources

Policy	
Policy 1.1	Implement zoning, regulations, and practices that provide for low-impact rural uses necessitating minimal public services.
Objectives	
Objective 1.1-1	Maintain the rural/remote character of the area.
Objective 1.1-2	Prevent the encroachment of residential sprawl into the county from neighboring jurisdictions.
Objective 1.1-3	Promote grazing, range agriculture, metals and aggregate mining, and other resources uses.
Objective 1.1-4	Consider industrial uses which require extensive buffering and/or require minimal public support infrastructure and services.
Objective 1.1-5	Discourage residential uses which may later conflict with resource uses.

Goal 2: Consider transportation routes and connections that support Painted Rock

Policy	
Policy 2.1	Coordinate regional transportation planning with neighboring jurisdictions and future development plans for the area.
Objectives	
Objective 2.1-1	Review development patterns and trends in neighboring jurisdictions.
Objective 2.1-2	Communicate Storey County development patterns and plans, including in Painted Rock, to neighboring jurisdictions.
Objective 2.1-3	Facilitate conversations between neighboring jurisdictions, area landowners, and developers to plan coordinated transportation alignments.

Goal 3: Encourage cooperation between Storey County and the Pyramid Lake Paiute Tribe on land use matters

Policy	
Policy 3.1	Communicate and work with the tribal council on land uses potentially affecting the Northeast planning area.
Objectives	
Objective 3.1-1	Communicate land use proposals and plans to the tribal council.
Objective 3.1-2	Request communication to the county from the tribal council regarding land use proposals within tribal lands potentially affecting the Northeast planning area.
Objective 3.1-3	Consider comments made by the tribal council on land use matters in the Northeast planning area.

Goal 4: Plan for the Northeast Area to integrate with future development in Fernley through the future extension of roads, public facilities and utilities

CHAPTER 4

Public Lands



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4.1 Chapter Introduction

4.1.1 Chapter Purpose

The purpose of the Public Lands element of the Storey County Master Plan is to:

- Define Storey County’s public land-related issues and needs in conjunction with this master plan, particularly federally owned- or managed land
- Detail Storey County’s vision and strong policy voice concerning public lands and potential congressional actions affecting uses on public lands
- Increase the role Storey County has in determining the management of federal lands by stating Storey County’s position in an approved public document, setting the stage for proactive local/federal agency collaboration
- Encourage public comment and involvement.

Figure 4.1-1 shows the typical landscape in Storey County.



Figure 4.1-1: Viewshed of the Virginia City and Gold Hill Areas

4.1.2 Public Lands Chapter Background

In 1983, the Nevada State Legislature enacted Senate Bill 40 to take advantage of the accommodation provisions (Section 202[c][9]) in the Federal Land Policy and Management Act. This section of federal law requires the Bureau of Land Management to develop land use plans consistent with state and local regulations provided that the land use plans must be consistent with federal laws and the purposes of the Federal Land Policy and Management Act.

Nevada Senate Bill 40 directed the State Land Use Planning Agency, with cooperation from other state agencies and local governments, to prepare plans and policy statements concerning the use of federally owned- or managed lands in Nevada. The purpose of this effort is to increase the role of Nevadans in determining the management of public lands. A large percentage of state land is under federal control, so it is important that the federal land management agencies understand and address state and local concerns and needs. A statewide policy plan was completed in 1985.

As part of this ongoing effort, Storey County developed its Public Lands Policy Plan as part of the 1994 Storey County Master Plan. The Public Lands Policy Plan was later revised and incorporated as the Public Lands element of the 2016 Storey County Master Plan. County planning staff worked with the State Land Use Planning Agency to maintain consistency between Storey County's public lands policies and those of other rural Nevada counties. As of 2024, Storey County has again reviewed and updated public lands policies for this master plan, and the County will continue to review and update its policies with respect to federal lands during each master plan update.

4.1.3 Coordination with Federal Agencies

This master plan presents an overview of existing and emerging public lands issues and opportunities that important to Storey County citizens, businesses, and other stakeholders as the County works with federal agencies under the National Environmental Policy Act, the Federal Land Policy and Management Act, and other public processes and legislation. Policies in this chapter address how to work collaboratively with the federal planning partners, most notably Bureau of Land Management, U.S. Department of Energy, U.S. Department of Defense, U.S. Forest Service¹, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and the U.S. Bureau of Indian Affairs.

Section 202(c)(9) of the Federal Land Policy and Management Act directs the Bureau of Land Management to consider appropriate state, local, and tribal lands in the development of federal land use plans. The Bureau of Land Management is to provide for meaningful public involvement of state and local government officials in the development of land use plans, regulations, and decisions for federal lands through its Resource Management Plan process.

¹ There are currently no lands in Storey County under U.S. Forest Service jurisdiction. However, it should be noted that Forest Service Regulations for Land Management Planning and for implementing the National Environmental Policy Act requires that the U.S. Forest Service determine the consistency of any project proposal with state and/or local laws and plans. The agency is required to describe any inconsistencies and the extent to which the agency would reconcile its proposal with the state/local laws and plans. This consistency review is also provided for by the Council of Environmental Quality regulations (40 CFR 1506.2(d)) developed to implement the National Environmental Policy Act.

The Bureau of Land Management will review each Resource Management Plan and proposed federal action for consistency with Storey County Master Plan public lands policies and will attempt to make the Resource Management Plans and proposed actions compatible with the master plan consistent with federal law and the purpose of the Federal Land Policy and Management Act.

4.2 Discussion

4.2.1 Land Ownership and Character

Federally owned land (primarily managed by the Bureau of Land Management) comprises approximately nine percent of the land in Storey County (Figure 4.2-1). This is a considerably smaller proportion of federal land compared to all other counties in Nevada. Private land makes up about 90 percent of Storey County, with about one percent of the county under County, State, or Tribal ownership or management. Nevertheless, public lands play a significant role in Storey County land use considerations.

Public lands and historic places are part of the rich heritage of Storey County. The county is in Northern Paiute tribal homelands and includes land owned by the Pyramid Lake Paiute Tribe. Early mining activities around the famous Comstock Lode are a significant part of Storey County history. Cultural and historic resources from the Comstock area and beyond are discussed in greater detail in Chapter 11 – Cultural and Historic Resources.

Today, the county’s history and its open spaces and broad vistas contribute to the unique character of the high desert. Locals and visitors enjoy many opportunities afforded by public lands, including modern day ranching, grazing, off-highway-vehicle use, recreation, and tourism; the use of public land resources has been an integral part of the rural lifestyle and local economy of Storey County. As such, the County supports responsible management and use of public lands.

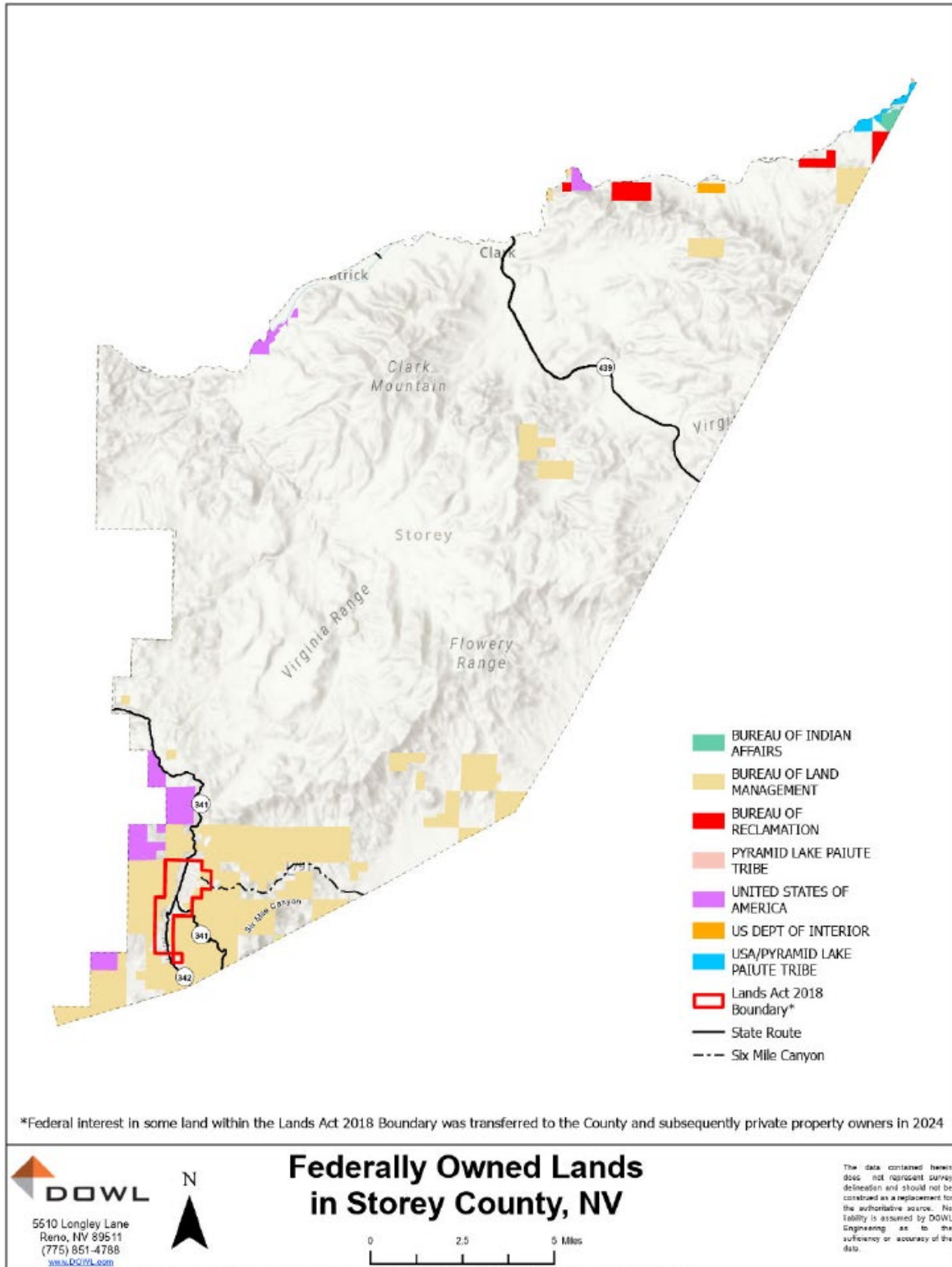
4.2.2 Land Management Priorities

The policies in this master plan are intended to further agriculture, mining, recreation, tourism, and other responsible uses that are critical to the economy and quality of life in Storey County. Open public access to recreation, wildlife, and resources should be available to all.

Public land management must consider maintaining sustainable resources for future generations. The County desires to maintain a thriving ecological balance among species and resources on public lands. This includes wild horse herds managed at populations that are consistent with the capacity of the land to support them, wildlife populations that are sustainable with hunting and natural predation, and livestock populations controlled by careful management of grazing permits.

Storey County recognizes that private property interests exist on public lands. Any established private property, including mining claims, water rights, access easements, and other private interests, must be upheld. Private property interests on public lands must be included as stakeholders in decisions that may affect their interests.

There are currently no lands in Storey County within the jurisdiction of the U.S. armed forces. However, Storey County supports U.S. military training on public lands as needed. Therefore, this master plan includes policies related to military use of federally owned lands in a consistent form to other counties throughout the state of Nevada. Like with any federal land use on public lands, the County is ready to participate in collaborative dialogue to protect local resident multiple uses of the public lands within the county. Figure 4.2-1 depicts federally owned lands in Storey County.



Source: Storey County Planning Department and Assessor's Office
 Figure 4.2-1: Federally Owned Lands in Storey County

4.2.3 Inter-Governmental Coordination

Under the Federal Land Policy and Management Act, 43 U.S. § 1701, federal land management agencies must periodically inventory federally owned- or managed land and plan for future land uses. Section 1712 (c) (9) requires that the inventory, planning, and management of federal lands be coordinated with states and counties where the lands are located, especially when the local entities have their own land use plans.

In 2015, the Bureau of Land Management and the Nevada State Department of Conservation and Natural Resources Division of State Lands engaged in a Memorandum of Understanding to establish procedures for coordination of planning and program activities conducted under the National Environmental Policy Act (See Memorandum of Understanding in Appendix E). This memorandum of understanding continues to guide coordination between the agencies at the time of this master plan update; the original agreement term expired in 2020, but the State plans to renew the agreement when agency staff time allows. The State and the Bureau of Land Management agree to the following in the Memorandum of Understanding:

1. Respond to each other's requests for comments or information in a timely manner (timing specified further in the Memorandum of Understanding).
2. Provide each other with a summary report of current agency planning, National Environmental Policy Act activities, and research projects on a regular basis.
3. Work cooperatively to identify inconsistencies between proposed Bureau of Land Management, State of Nevada, and local land use plans, programs, and policies.
4. In the event of inconsistencies or disagreements, the Nevada State Clearinghouse (run through the State Land Use Planning Agency) will mediate a discussion between the Bureau of Land Management and the State to seek resolution of the issue(s).
5. Pursuant to Nevada Revised Statutes 321.735 and NRS 321.740, the State Land Use Planning Agency and the State Land Use Planning Advisory Council "may represent the interests of the state, its local or regional entities, or its citizens as these interests are affected by policies and activities involving the use of federal lands." The Advisory Council may review National Environmental Policy Act activities and assist in outreach and feedback at the state level regarding county-level concerns at a county's request. Bureau of Land Management staff will attend Nevada State Land Use Planning Advisory Council meetings when requested.

Federal land management policies and procedures, land transactions, and their compatibility with the local master plan land use goals are of critical importance to county stakeholders. The Storey County Board of County Commissioners, Planning Commission, and planning staff are actively involved in proposed public land actions. This includes reviewing proposals and updating County planning documents to reflect county priorities including access to and uses of public lands.

4.2.4 Public Land Management Guiding Principles

Storey County supports “multiple-use management” of public lands and resources. Multiple-use management prioritizes balance and diversity of land and resource uses as well as protecting the long-term needs of county residents, as follows:

- Responsible and ecologically sensitive development of renewable and non-renewable resources (including, but not limited to, recreational areas, range, timber, energy, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historic areas).
- Consider relative values of resources and land uses, not just producing the greatest yield or economic return for each parcel of land.
- Avoid permanent negative impacts to land productivity, environmental quality, and cultural and historic resources.
- Mitigate potential negative impacts of some land uses on other land uses. It may not be appropriate for all uses to be allowed in all areas.
- New overarching land use restrictions such as through Wilderness Areas are not compatible with existing multiple uses on public lands in Storey County.

Periodic adjustment to the use of public lands and resources may be needed to conform to changing needs and conditions in the county; multiple-use management is intended to be flexible and adaptable.

4.2.5 Federal Land Transactions

4.2.5.1 Resolving Storey County Clouded Title Issues

In 1876, the General Land Office surveys of the Virginia City and Gold Hill town sites were approved. However, subsequent requisite actions were not completed, and federal patent to the land was not issued. As a result, there was clouded title on nearly 75 percent of residential and commercial parcels in these communities. Prospective land owners commonly encountered challenges securing financing, insurance, and certain entitlements for the affected land.

Section 3009(d) of the National Defense Authorization Act for Fiscal Year 2015 included a provision directing the Bureau of Land Management to convey all relevant U.S. surface rights to Storey County so the County could transfer clean title to each affected owner in the townships. County officials and the Bureau of Land Management worked collaboratively to address proper methods for conveying the land by quitclaim deed, define the boundaries of the area identified in the legislative map, and validate all mining claims.

In 2018, Public Law 113.291 was passed by Congress, which transferred federal interest in the land to the County via quit-claim deed. The County simultaneously quit-claimed its interest in the land to the individual owners. AB143 was introduced in 2022 to work out more specifics of the transfer process. In April 2024, deeds were recorded for each of the individual properties and provided to the owners along with information about the legislative process up to that point, finally resolving the longstanding clouded title issue in Virginia City and Gold Hill.

4.2.5.2 Public Land Transactions

The Bureau of Land Management and other federal agencies have procedures for land transactions which can include disposal, exchanges, and acquisitions. The Bureau of Land Management process can be “cost prohibitive” and time-consuming when applied to small, isolated land exchanges and sales. Without sacrificing proper communication procedures, the County encourages finding opportunities for agency cooperation to make processes more efficient.

Besides public land disposal, there are situations where government agencies consider acquiring additional land, exchanging land, or placing new special designations on land that could restrict access or uses on the land. Storey County encourages coordination with agencies to ensure local interests are protected.

Figure 4.2-2 depicts lands Storey County has identified as beneficial in local control and is working to request for federal disposal. Currently, these parcels include the Gold Hill cemetery, a school site, and a parcel adjacent to existing development in the Mark Twain area. The map may evolve over time and can be used as a guide for more detailed studies, and each parcel would need to be further reviewed at the time a specific realty action is proposed.

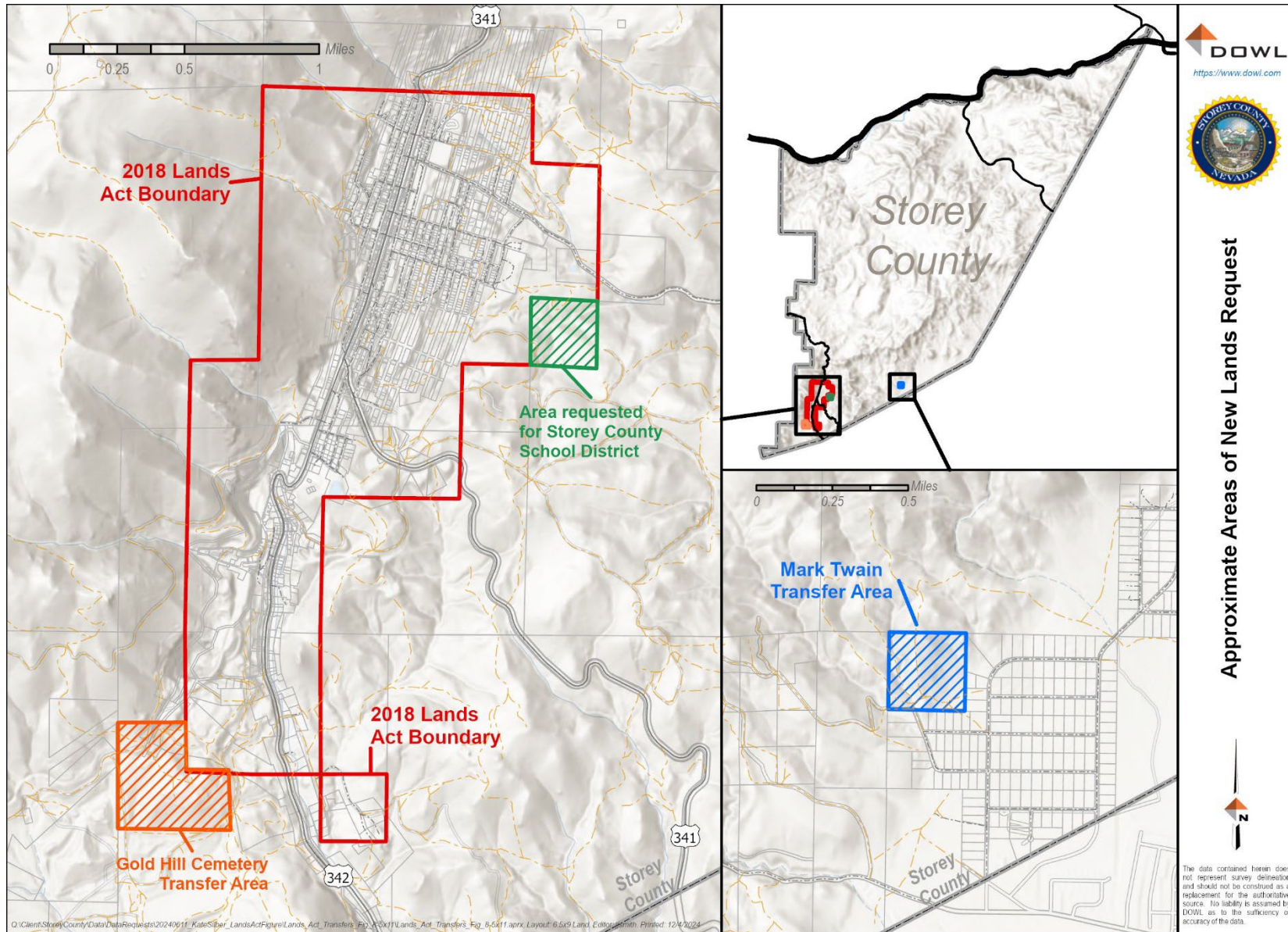


Figure 4.2-2: Federal Land Areas Requested for Transfer to Storey County (sizing is approximate)

4.3 Public Land Access and Safety

Access to public lands is a critical component of the economic vitality and quality of life within Storey County, and multiple use access is strongly encouraged.

4.3.1 Public Roads and Land Access

A common way for a public road to be created is via a plat, subdivision, or record of survey process which explicitly designates a public road, delineating the right-of-way from adjacent private properties. Creating public roads across public lands may be more flexible. According to State law sections NRS 405.191 and 403.410, a “public road” can also be defined as follows:

1. A U.S. highway, a state highway, or a main, general, or minor county road and any other way laid out or maintained by any governmental agency.
2. Any roadway which exists upon a right-of-way granted by U.S. Congress over public lands of the United States not reserved for public uses in chapter 262, section 8, 14 Statutes 253 (former 43 U.S. Code § 932, commonly referred to as Revised Statute 2477), and accepted by general public use and enjoyment before, on or after July 1, 1979. Each Board of County Commissioners may locate and determine the width of such rights of way and locate, open for public use and establish thereon county roads or highways, but public use alone has been and is sufficient to evidence an acceptance of the grant of a public user right of way pursuant to former 43 U.S. Code § 932.

Essentially, any route across public lands (with a few exceptions as listed above) that the public has used or uses can be considered a public right-of-way. To further document such public rights-of-way, the local county can officially establish public county roads.

In March 2023, the Storey County Board of Highway Commissioners began the process of recognizing by Resolution roadways within the county that qualify as Revised Statute 2477 located on public land. A Resolution is generated for each segment of Revised Statute 2477 roadway. The purpose of this recognition is to protect public access to these routes across public land. Research was also conducted for all roadways qualifying as Revised Statute 2477; however, the roadways on what is now private land will be addressed on a case-by-case basis as need arises.

It is important to note that these Resolutions specify that the minor county road do not require maintenance and will not change the maintenance schedule of the Storey County Public Works Department unless it is determined to be necessary in the future. Roads and infrastructure maintenance are discussed further in Chapter 8 – Transportation and Chapter 9 – Public Services & Facilities.

Another important access consideration is the impact of land ownership on the development of needed public roads. Some areas are hindered due “checkerboarding” of different land ownership, public and private. For example, this challenge previously delayed development of the USA Parkway. When areas of common ownership are connected only at a corner, there is no legal access unless ownership changes or an agreement on access can be reached. In the context of mixed land ownership,

establishing and protecting public access will continue to be a priority for the County to ensure adequate access for future development such as housing.

4.3.1.1 Public Safety

Storey County appreciates the safe passage of its residents and visitors on public lands and is committed to collaborating with the Bureau of Land Management as appropriate to maintain public safety. Specific goals, policies, and objectives for public safety are discussed in this chapter.

Introduced factors including climate change, ineffective land and vegetation management, and the proliferation of invasive weeds have led to the dangerous potential for wildfires that affect the economic and environmental wellbeing of the county, as well as public safety. The Bureau of Land Management, the Nevada Division of Forestry, and local fire departments and districts collaborate to share knowledge and resources to prevent and respond to wildfires. Policies related to wildfire management are discussed later in this chapter, and Storey County Fire Protection District's services are discussed further in Chapter 9 – Public Services & Facilities.

4.3.1.2 Utility and Other Rights-of-Way

Storey County supports use of public lands for rights-of-way for multiple purposes beyond transportation. Rights-of-way are needed for communication, energy, recreation, safety, and monitoring (e.g., weather monitoring). Facilities for such purposes are often manned or frequently accessed; equipment for such purposes is often remotely sited and only rarely accessed for maintenance. Non-transportation rights-of-way in the county include:

- Communication system rights-of-way may be needed for telephone lines, wireless commercial communications facilities, microwave towers, television/radio antennas and transmitters, other communication channels, and access to the sites required for the facilities and equipment.
- Energy system rights-of-way may include corridors for transmission and distribution lines, sites for energy generation, sites for power substations, and access to the sites for the required facilities and equipment.
 - The proposed Greenlink West project is an example of a new renewable energy project that would include electric transmission lines crossing between northern and southern Nevada, including across a portion of Storey County. The Bureau of Land Management is completing an Environmental Impact Statement for the Greenlink West project at the time of this master plan update.²
- Recreational use rights-of-way may include trails, trailheads, recreation sites, and access to the designated sites, including for special recreational events.
- Safety rights-of-way may include easements and other means to manage potentially damaging events such as wildfires or flash-floods.
- Monitoring rights-of-way may include sites for weather monitoring or other scientific data gathering and access to the equipment installed at the sites.

² Greenlink West information is on the Bureau of Land Management website here: <https://eplanning.blm.gov/eplanning-ui/project/2017391/510>

4.4 Recreation and Open Space

4.4.1 Recreation and Open Space Resources

Storey County residents and visitors enjoy many natural amenities including wildlife viewing and other natural and historical landscapes. These resources should be protected and developed for public recreation and other multiple use benefits. Open space with full public access is critical to Storey County's economy and cultural identity.

4.4.2 Wilderness

Storey County supports responsible land use and preservation of natural environments and ecosystems. Special areas in Storey County should be protected from irresponsible off-highway vehicle use (see the Off-Highway Vehicles section below), speculative oil and gas development, and to provide for clean air and water for future generations. At the time of this master plan update, some Virginia City Highlands property owners requested establishment of a designation to conserve some open spaces, which the County may explore to help maintain natural areas.

However, Storey County is opposed to the creation of federally designated wilderness areas on public lands within its boundaries, which would add restrictions on certain activities such as the use of motorized vehicles. Wilderness areas would conflict with the County's policy of multiple-use management on public lands. It is the County's position that public lands should maintain off-highway vehicle use on roads and trails that already exist.

4.4.3 Off-Highway Vehicles

The use of off-highway vehicles has increased significantly over the past decade. Off-highway vehicle use is important to the lifestyle of many Nevadans and Storey County residents for work and recreation. Responsible off-highway vehicle use also provides economic benefit to the local tourism and business economy. As discussed in the Policies later in this chapter, a specific off-highway vehicle management plan and supporting policies related to responsible off-highway vehicle use could help improve safety and protection of the natural areas and private property interests.

4.5 Natural Resource Industries

4.5.1 Agriculture, Livestock, and Forest Products

Agricultural production is part of the long-term heritage of Storey County. This private industry benefits Storey County economically and culturally. While current water supply challenges may constrain some agricultural production, agriculture and livestock production are still practiced locally on private and public lands.

In Storey County, forestry (the production of forest products), logging, fishing, hunting, and trapping are more limited than agricultural activities. The county has no lands under U.S. Forest Service jurisdiction, so the County seeks to protect forest resources and promote the continuation of a sustainable

forestry products industry by relying on self-determination and open-market conditions as may be appropriate for non-U.S. Forest Service forests in the county.

Table 4.5-1 lists data sourced from the 2021 Nevada Economic Assessment Project, Socioeconomic Baseline Report for Storey County. The data covers a snapshot of 2011 versus 2021 jobs, earnings, sales, and taxes paid by businesses and/or individuals working in a selection of agriculture or forestry related industries. (The industries listed in Table 4.5-1 are based on North American Industry Classification System industries in the same sector; detailed definitions are available in the Baseline Report.)

Table 4.5-1: Economic Summary of Agriculture and Forestry Industries in Storey County

Industry	2011 Jobs	2021 Jobs	Average Annual Earnings per Job	Total Sales	Taxes Paid
Crop Production	0	64	\$52,693	\$13,288,927	\$299,289
Animal Production and Aquaculture	0	0	\$0	\$0	\$0
Forestry and Logging	0	<10	Insf. Data	\$40,289	\$1,520
Fishing, Hunting, and Trapping	0	<10	Insf. Data	\$100,555	\$14,356
Support Activities for Agriculture and Forestry	35	13	\$44,282	\$753,942	\$14,463

Insf. = Insufficient

While agriculture, livestock production, and forestry may represent a central part of Storey County history and culture, there are few local jobs in these industries in more recent years. In instances where these activities continue in the county, they may be more for personal use rather than a source of income. Still, public lands and the natural resources on private lands should be managed sustainably so that these activities can continue.

4.5.2 Mining and Energy Regulations

The responsible development of Nevada’s mineral, geothermal, solar, and wind energy resources is desirable and necessary to the economy of the nation, the State, and Storey County. However, considerable concern has been expressed by residents, businesses, and historic preservationists regarding the impact of mining, commercial wind and solar energy facilities, and other surface developments on natural and historical resources and viewshed located within and around the Virginia City National Historic Landmark. Cultural resources are further discussed in Chapter 11 – Cultural

and Historic Resources.

Leading up to the development of the 2016 County Master Plan, amendments were made to the County’s zoning ordinance regulating and entitling surface- and underground mining, and findings of fact were incorporated into the master plan as a result of that process. The County suggested these findings are considered as part of any Bureau of Land Management decision or application review involving mineral and renewable energy development in and around the Virginia City National Historic Landmark and Comstock. Below is a summary of the findings:

- Certain mineral and surface property rights exist across the county in accordance with federal laws, and this master plan serves to protect those rights.
- Storey County’s diverse economic opportunities, which include mineral and renewable energy development, should be appropriately regulated so they do not cause substantial adverse impacts to adjacent uses and are not detrimental to health, safety, and general welfare in the county.
- Recognizing that mining is a part of local heritage that continues to be practiced in the county, this master plan serves to address and provide for regulations which mitigate potential adverse impacts that mining and related activities may have on other natural and historic environments and adjacent land uses (e.g., residential, commercial, tourism) as they now exist or as they may in the future be developed.
- Surface mining (e.g., open pit mining) causes substantially greater impact than underground mining. While the provisions under this chapter provide for surface mining under certain circumstances, underground mining methods are highly encouraged instead of surface mining in all areas of the county.
- Areas surrounding State Route 341 and State Route 342 within the Virginia City National Historic Landmark are found to contain critical natural and manmade features which contribute to the historic integrity of Gold Hill and Virginia City. This area has been incorporated into the “Comstock Historic Preservation Area” map as shown in Figure 4.2-3 and made part of this master plan.³
- Under certain circumstances and when regulated appropriately by local ordinance, mining and processing of existing historic mine dumps and tailings, including those within the Virginia City National Historic Landmark, may be found to be beneficial when the existing mine dumps and tailings contain Contaminates of Concern applicable to the Carson River Mercury Superfund Site and when appropriate measures are employed to preserve the historic significance of the manmade landscape features.

³ The Comstock Historic District, discussed further in Chapter 11 – Cultural & Historic Resources, also governs development in the Comstock area. At the time of this Master Plan update, there is a proposal to change the Comstock Historic District to exclude the Virginia City Highlands, but this has not yet been finalized. Please refer to Chapter 11 for a map of the Comstock Historic District and further discussion.



Figure 4.5-1: Comstock Historic Preservation Area

Table 4.5-2 lists data sourced from the 2021 Nevada Economic Assessment Project, Socioeconomic Baseline Report for Storey County. The data covers a snapshot of 2011 versus 2021 jobs, earnings, sales, and taxes paid by businesses and/or individuals working in a selection of mining and resource extraction related industries. (The industries listed below are based on North American Industry Classification System industries in the same sector; detailed definitions are available in the Baseline Report.)

Table 4.5-2: Economic Summary of Mining Industries in Storey County

Industry	2011 Jobs	2021 Jobs	Average Earnings per Job	Total Industry Sales	Taxes Paid
Oil and Gas Extraction	0	0	\$0	\$10,725,065	\$1,897,500
Mining (except Oil and Gas)	46	62	\$100,472	\$23,774,511	\$1,604,321
Support Activities for Mining	15	0	\$0	\$52,555	\$3,216

While mining and resource extraction may represent a central part of Storey County history and culture, there are few local jobs in these industries in recent years. In instances where these activities continue in the county, they may be more for personal use and profit rather than businesses in this sector. Still, public lands and the natural resources on private lands should be managed sustainably so that these activities can continue.

4.5.3 Renewable Energy Resources

The development of Storey County renewable energy resources is necessary to the local and state economy. The policies in this chapter address appropriate location and management of these operations in the county.

4.6 Goals, Policies, and Objectives

Goal 1: Coordinate with federal land management agencies to represent local Storey County interests and priorities in the management of public lands within the county.

Policy	
Policy 1.1	Storey County should proactively coordinate with federal land management agencies on proposed actions, plans, or studies on public lands within Storey County.
Objectives	
Objective 1.1-1	Federal land management agencies shall provide notification to the Board of County Commissioners of all proposed actions, plans, or studies on state and federally managed lands within Storey County. Notification and related documents such as reports shall be provided to the County as soon as practicable and with sufficient time for review and preparation of comments.
Objective 1.1-2	Review federal land use plans and projects applying to Storey County for consistency with this master plan. County planning staff shall review proposed actions, plans, or studies for conformance with this plan and recommend appropriate action concerning such proposals to the Board of County Commissioners.
Objective 1.1-3	As applicable or requested by the Board of County Commissioners, County planning staff shall report the desires or concerns of county citizens to the Board of County Commissioners to assist in representing county citizens in responses to federal proposals.

Policy	
Policy 1.2	Storey County may be financially impacted by approved federal actions or management decisions on public lands and will pursue just compensation as appropriate.
Objectives	
Objective 1.2-1	Federal or state agencies shall provide compensation for the costs of providing services incurred as a result of approved federal actions or management decisions on the public lands (e.g., compensation for the cost of road repairs and public safety related to uses permitted by the federal agency on public lands, additional cost to equip for handling of hazardous waste incidents).

Objective 1.2-2 Federal or state agencies shall provide compensation for lost economic opportunities and/or tax revenues due to approved federal actions or management decisions on the public lands (e.g., restriction of development of renewable energy or consideration for military operations).

Federal land management agencies shall provide notification to the Board of County Commissioners of all proposed actions, plans, or studies on state and federally managed lands within Storey County. Notification and related documents such as reports shall be provided to the County as soon as practicable and with sufficient time for review and preparation of comments.

Policy

Policy 1.3 Support the concept of multiple-use management as an overarching philosophy for sustainable management of public lands (as defined above in Section 4.2-4).

Policy

Policy 1.4 On public lands, protect and preserve: the quality of the natural environment; economic, cultural, historic, ecological, scenic, and archeological values; wildlife habitat; responsible livestock grazing for fire fuels management; and economic opportunities for county residents.

Goal 2: Coordinate with federal land management agencies to represent local Storey County interests and priorities in public lands transactions or proposals within the county.

Policy

Policy 2.1 Storey County requires communication and efficiency in federal land transactions.

Objectives

- Objective 2.1-1** Adequate (e.g., 90 days) public notice must be given to the Board of County Commissioners, the County Manager, and County planning staff before the initiation of any federal land transactions.
- Objective 2.1-2** The Bureau of Land Management must be responsible to review the agency’s land sales/exchange procedures to determine ways to expedite the sales and exchange process, including policy changes when appropriate.
- Objective 2.1-3** Land exchanges and sales that consolidate high value public purpose lands and/or

make private lands more manageable should be given high priority in federal land transaction processes.

Policy	
Policy 2.2	<p>Storey County supports disposal of the following public lands:</p> <ul style="list-style-type: none"> • Land identified in the map and itemized list in Figure 4.2-2 (and subsequent updates of the map and list coordinated between the Bureau of Land Management and Storey County). • Isolated tracts of public land, certain checkerboard areas, and public lands in rural areas where land has already been identified for disposal. • Selective areas of land that could, if made private, provide opportunities for local economic development. <ul style="list-style-type: none"> ○ For example, this could be for housing where supported by the County Master Plan, provided that water rights can be secured to serve new housing development. ○ Land that is disposed could also be used for intensive agricultural operations⁴ (except industrial agricultural purposes such as feed lots, slaughter houses, and other such uses that create a substantially built environment), if the Nevada State Engineer indicates adequate water is available (see Chapter 10 – Water and Natural Resources). Preference should be given to existing land users or adjacent land owners through a direct sale or preferential bid, where possible.

Policy	
Policy 2.3	<p>Before disposal of public lands, potential adverse impacts to the following should be considered: existing uses such as important wildlife habitat, key seasonal grazing rights, watersheds, flood prone areas, public access, mineral potential, oil/natural gas potential, renewable or alternative energy potential, historical and cultural resource areas, and recreational use of the lands.</p>

Objectives	
Objective 2.3-1	<p>All public land easements and/or access to and through disposed lands should be retained for continued public use. The use of alternative access to accommodate land management through private property may be employed if necessary, feasible, and appropriate; alternative access should be acquired and guaranteed prior to the disposal and loss of any existing access and should be of equal value and public benefit.</p>

⁴ Through either the Desert Land Act or the sale authority provided by the Federal Land Policy and Management Act and the BACA Bill.

Policy

Policy 2.4 Public lands should be made available as needed for state and local government purposes (e.g., for municipal water supplies and systems, municipal sewage systems, drainage features). Lands identified for public purposes should receive preference over disposal for private purposes.

Policy

Policy 2.5 The County will work to maintain “no net loss” in private, county, or state acreage. The County supports exchanges that will increase economic development, but is concerned about proposals that will reduce private, county, or state ownership unless they provide a clear benefit to Storey County.

Policy

Policy 2.6 Storey County opposes government agencies acquiring additional private lands in Storey County without first ensuring:

- Private land is not disposed of unless the disposal clearly benefits the citizens and functions of Storey County
- Environmental and cultural resources are protected
- Private property interests are protected or enhanced
- Socioeconomic impacts are duly considered
- Takings in any form are fully compensated and substantiated to meet the highest public need
- Local tax base is not negatively impacted
- Due process is guaranteed to all private parties involved in land use controversies, by means that do not demand or create a financial hardship
- Nevada, Storey County, and any other local government within those jurisdictions in which the land is located be consulted in regard to the acquisition.

Policy

Policy 2.7 No new wilderness areas or other special public land designations should be designated without the express approval of the Board of County Commissioners. The County should review special public land designation proposals for opportunities and/or potential conflicts with the County’s priority of multiple-use management.

Objectives	
Objective 2.7-1	<p>Within Storey County, any new specially designated areas (e.g., national recreation areas, national monument areas, national conservation areas, wildlife refuges, wilderness, state parks) should be reviewed carefully in a public forum to determine if they are suitable and beneficial to local residents.</p> <ul style="list-style-type: none"> • The establishment of new specially designated lands may be a valuable asset to Storey County and its residents. • Determination of value can only be achieved through close coordination with the Board of County Commissioners and a transparent public input process. • The Board of County Commissioners could consider adopting a resolution deeming all areas within Storey County to be inappropriate and unsuitable for wilderness designation.
Objective 2.7-2	<p>Explore ways to establish designations or easements to conserve open spaces, such as requested by some Virginia City Highlands property owners.</p>
Objective 2.7-3	<p>The Board of County Commissioners and planning staff will review all public land withdrawals⁵ that include the potential for the transportation, storage, and disposal of all hazardous and toxic refuse or waste materials.</p> <p>All public land easements and/or access to and through disposed lands should be retained for continued public use. The use of alternative access to accommodate land management through private property may be employed if necessary, feasible, and appropriate; alternative access should be acquired and guaranteed prior to the disposal and loss of any existing access and should be of equal value and public benefit.</p>

Policy	
Policy 2.8	<p>The planning of corridors for the future transmission of energy, communications, and transportation should be in conjunction with the planning of other multiple uses on federally administrated lands.</p>

⁵ According to the Bureau of Land Management website, “The Secretary of the Interior has authority to withdraw lands in Federal ownership, effectively removing an area from settlement, sale, location or entry for the purpose of limiting activities to maintain other public values in the area or to reserve it for a particular public purpose or program,” such as a transfer between federal departments or agencies, such as for military use. <https://www.blm.gov/programs/lands-and-realty/withdrawals>

Goal 3: Maintain public access to and through public lands.

Policy	
Policy 3.1	The definition of a “public road” (as determined by state and federal law cited above in this master plan) should be used consistently in Storey County as well as throughout Nevada by all federal, state, and local agencies. This includes recognition of Storey County rights to own and manage “public roads” and related rights-of-way across public lands.
Objectives	
Objective 3.1-1	The County and the Bureau of Land Management will coordinate to map minor county roads across public lands in accordance with Storey County Board of Highway Commissioners Resolution 23-682.
Objective 3.1-2	In accordance with Storey County Board of Highway Commissioners Resolution 23-682 (and older documentation of Revised Statute 2477 rights-of-way and historic Gardner and Nevada Department of Transportation maps), continue to inventory and protect historical public access to public lands (even if the access crosses private property) and access to mining claims.

Policy	
Policy 3.2	Prioritize access across federally managed land rather than private lands.
Objectives	
Objective 3.2-1	Federal agencies shall allow access across federally managed lands by rights-of-way prior to the need for access across private lands.
Objective 3.2-2	Federal agencies shall allow installation of and access to communication, energy, recreation, safety, or monitoring facilities and related right-of-way corridors on federally managed lands prior to the need for installation on or access through private lands. Where feasible, such facilities should be near existing federal, state, or county highways or roads, with access provided via existing road rights-of-way.
Objective 3.2-3	Work with federal land management agencies to map and manage communication, energy, recreation, safety, and monitoring rights-of-way.

Policy	
Policy 3.3	Support optimized accessibility within the county to reduce the cost of movement between all communities across public lands.

Policy	
Policy 3.4	Proactively coordinate with developers of road, utility, and other rights-of-way to anticipate and mitigate impacts to undeveloped areas.

Goal 4: Coordinate with federal agencies to maintain public safety on public lands.

Policy	
Policy 4.1	Roads on public lands shall be maintained for safe passage. Areas of high travel should be made a priority.
Objectives	
Objective 4.1-1	Where road conditions are dangerous, signs and other public notification should be used until the condition can be mitigated. Maintenance of roads should be coordinated between the Bureau of Land Management, Storey County, and the public. <i>It is important to note that according to Resolution 23-682, minor county roads do not require maintenance unless the Storey County Public Works Department determines it to be necessary.</i>
Objective 4.1-2	New and existing state highway rights-of-way should be fenced to protect the traveling public and to reduce the loss of livestock, wild horses, antelope, and bighorn sheep. The fencing should be constructed under a cooperative effort between the Bureau of Land Management, Nevada Department of Transportation, the Nevada Department of Wildlife, the Nevada Division of Forestry, private property owners, and permittees.

Policy	
Policy 4.2	<p>Storey County law enforcement and public safety organizations will work collaboratively with the Bureau of Land Management and other federal or state enforcement and safety organizations.</p> <ul style="list-style-type: none"> • The County appreciates the presence and cooperation of federal law enforcement officers on public lands but is opposed to any increase in Bureau of Land Management law enforcement authority. The County prefers the existing protocol between federal officers and the Storey County Sheriff's Office. • Storey County supports military training on public lands and a collaborative dialogue with the U.S. Department of Defense on any planned training or other exercises in the county but opposes low-level flights of high-speed military aircraft in the Storey County airspace.
Objectives	
Objective 4.2-1	Coordinate with the Bureau of Land Management to ensure adequate personnel, cooperative training, and equipment for hazardous materials response.
Objective 4.2-2	Coordinate with the Bureau of Land Management to ensure adequate personnel, cooperative training, and equipment to meet the increased demand for back-country search and rescue.

Goal 5: Protect Storey County from wildfires.

Policy	
Policy 5.1	Wildland-Urban-Interface fire policies, including 100 percent suppression, should be practiced at all levels. Defensible space should be a responsibility of federal, state, and local agencies, as well as private property owners on their respective lands in which they have responsibility.
Objectives	
Objective 5.1-1	Maintain local coordination between the Bureau of Land Management, the Nevada Division of Forestry, and local fire departments and districts to increase the effectiveness of fire suppression, rehabilitation, and prevention, including through the development of mutual-aid agreements. Particularly local coordination is critical, so that federal agencies and out-of-area fire crews can benefit from local resources, skills, and knowledge.
Objective 5.1-2	In the event of fires on public lands in Storey County, the County and Storey County Fire Protection District will aid in any way possible in suppression of wildfires that endanger the livelihoods and personal wellbeing of its citizens and stakeholders.
Objective 5.1-3	Encourage federal agencies to continue the policy of contracting with Storey County residents and businesses for privately owned equipment suitable for firefighting. Encourage the practice of early season inspections and sign-ups well before the fire season.
Objective 5.1-4	All fire equipment should be cleaned to assure it is noxious “weed-free” before being dispatched to, or released from, a wildfire. This should be done to assure that fire apparatus is not spreading noxious weeds to other geographical areas within the state, or other states.

Policy	
Policy 5.2	Maintain vegetated open spaces to prioritize wildfire prevention.
Objectives	
Objective 5.2-1	The local fire district, Nevada Division of Forestry, and federal agencies should develop and implement fire management plans to incorporate thinning, fire use areas, prescribed burns, and re-seeding to restore native types of fire resistive fuels and reduce the impact of invasive species.
Objective 5.2-2	Nevada Department of Transportation should mow and/or spread herbicide on all

	highway rights-of-way as frequently as possible to reduce the potential for the spread of fires onto adjacent public and private lands.
Objective 5.2-3	Encourage the use of green stripping. Treated areas should be seeded with fire-resistant grasses and maintained. With aggressive suppression efforts comes the overgrowth of specific fuel types. Efforts should be made to reduce fuel loading and restore natural ecosystems.
Objective 5.2-4	Encourage private ranchers and federal agencies to consider using livestock to reduce fire hazard. There may be situations where livestock grazing can be effective in reducing fire fuels without causing environmental damage. Sheep and goats should be used for grazing as mitigation wherever practical to reduce fuel loads.

Goal 6: Support recreational uses of public lands.

Policy	
Policy 6.1	Storey County will work with local, state, and federal agencies and stakeholders to identify, conserve, and protect scenic, historical, recreational, and open space resources. Storey County reserves the right for application under the Recreation and Public Purposes Act for all such resources.

Policy	
Policy 6.2	<p>Strategically plan and invest in improvements to recreation projects, considering location and relationship to other multiple uses of public lands. For example:</p> <ul style="list-style-type: none"> • Recognizing that most Nevadans reside in towns, it is the County’s position that investments in open space, parks, and recreation facilities should be concentrated as close to resident populations as feasible. • Public lands with value for concentrated recreational use (e.g., camp grounds, historic sites, wagon trails) should be identified, protected, and developed for recreational purposes. Storey County suggests that the Bureau of Land Management consider withdrawing these key areas from mineral entry on a limited basis. Any proposals for mineral withdrawals should be coordinated with the Board of County Commissioners.

Policy	
Policy 6.3	Encourage recreational uses that are sustainable and support the local economy.
Objectives	
Objective 6.3-1	Increase marketing efforts that describe the opportunities available, such as dispersed recreation on public lands, other eco-tourism, or operating motorcycles, four-wheel-drive vehicles, and off-highway vehicles. These types of recreation opportunities can help attract visitors to patronize a variety of local businesses.
Objective 6.3-2	The County and relevant agencies should cooperate to encourage recreational uses while also protecting natural resources from damage through land management strategies and encouraging responsible and safe visitors and tourism operators.

Policy	
Policy 6.4	Storey County supports hunting and fishing as recreational resources on public lands and endorses the State’s programs to provide sustained levels of game animals.

Policy	
Policy 6.5	Storey County supports the responsible use of off-highway vehicles for transportation and recreation.
Objectives	
Objective 6.5-1	<p>Initiate the development of a Storey County Off-Highway Vehicle Use and Management Plan involving a broad-based local stakeholder group to provide input in determining priorities for current and future off-highway vehicle use and management in the county.</p> <ul style="list-style-type: none"> • This should include mapping of trails within public lands in the county. • Designated off-highway vehicle trails will be aligned as much as possible with other public roads and away from private roads, driveways, and other private ways. • This should consider and identify any special areas that should be protected from irresponsible off-highway vehicle use to preserve the natural environment. • This should also address private property conflicts and the noticing of private property adjacent to off-highway vehicle trails.

Objective 6.5-2 Support other policies and regulations to:

- Prioritize safety for off-highway-vehicle users and non-users and promote sensible and responsible use of off-highway vehicles through registration, education, training, advertising, and other means.
- Require off-highway vehicle users to stay on designated roads and trails or in limited off- road use areas and actively discourage the pioneering of new trails. This is to minimize further environmental degradation of public lands, air, water, wildlife, and vegetation.
- Encourage sufficient resources to be made available to local district offices to publish maps of areas and routes suitable for off-highway vehicle use.
- Effectively monitor and manage off-highway-vehicles where they are allowed.

Objective 6.5-3 Encourage and support administration of money generated through off-highway vehicle registration that will:

- Be administered by a balanced broad-based board with an emphasis on rural representation.
- Provide public safety and enforcement of rules and regulations.
- Provide restoration and rehabilitation of damaged lands and trails.
- Provide maintenance for existing trails.
- Pay for new trail construction.

Goal 7: Promote agriculture, livestock, and forestry activities that are sustainable and beneficial to the local economy of Storey County.

Policy	
Policy 7.1	The County supports the preservation of opportunities for agriculture in the county, including agricultural development permits on public lands.
Objectives	
Objective 7.1-1	Federal agency notification shall be provided to the County for all actions regarding agriculture-related permit renewals and status within the county.
Objective 7.1-2	Preserve agricultural land and promote the continuation of agricultural pursuits, both traditional and non-traditional, but not including industrial agricultural uses such as animal feed lots, slaughter houses, and other such uses that create a substantial built environment.

Policy	
Policy 7.2	Promote land stewardship and sustainable management practices in agricultural operations.
Objectives	
Objective 7.2-1	<p>Agencies managing public lands should manage agricultural / grazing permits according to the following:</p> <ul style="list-style-type: none"> • Allotment management strategies should be developed that provide incentives to optimize stewardship by the permittee. Monitoring of the permittees should be conducted to ensure that the incentives are optimizing stewardship. • Grazing should use sound adaptive management practices. Storey County supports the periodic updating of the Nevada Rangeland Monitoring Handbook to help establish proper levels of grazing. • Coordinate with the N-1 Grazing Board on all manners affecting livestock grazing on public lands within the county.

Policy	
Policy 7.3	<p>Water rights associated with agricultural lands should be protected to prevent water from leaving the basin.</p> <ul style="list-style-type: none"> • Range water rights and improvements such as those associated with seeps, springs, streams, lakes, and wells used by livestock should be protected in the long-term. • Encourage cooperation between the federal land management agencies and the grazing operator in protecting the riparian values of these water sources.

Policy	
Policy 7.4	Support sustainable woodland and forest management, by ecological condition for a diversity of vegetation communities. Grass and shrub ecosystems with no or few invasive species are preferable to ecosystems with invasive and imbalanced ecosystems.
Objectives	
Objective 7.4-1	Encourage activities that will retain and improve the health and vigor of aspen communities.

Policy	
Policy 7.5	Promote multiple uses of public forest resources to realize sustainable and continuous provisions of timber, forage, firewood, wildlife, fisheries, recreation, and water.
Objectives	
Objective 7.5-1	Support the prompt salvage of forest losses due to fire, insect infestation, or other events.
Objective 7.5-2	The Bureau of Land Management should allow and promote thinning of wildland and urban interface forests. This should be done in such a manner that local entities have an opportunity to derive economic benefit from the forest.

Goal 8: Responsibly manage mining opportunities in Storey County.

Policy	
Policy 8.1	Encourage the balance of responsible development and production of Storey County’s mineral, geothermal, solar, and wind resources while recognizing the need to protect the environment, ecologic resources, cultural and historic resources, and existing residential environments.

Policy	
Policy 8.2	Protect mining opportunities and their economic benefits to Storey County.
Objectives	
Objective 8.2-1	Notify the Bureau of Land Management of County special use permits issued for mining and exploration, which the Bureau of Land Management honors.
Objective 8.2-2	Federal and state agencies should notify the County of any actions, regulations, or permit applications which may impact the exploration, development, extraction, or other opportunities for minerals or renewable energy and associated industry on land within the county.
Objective 8.2-3	Regulatory hurdles for mining and renewable energy development projects should be minimized as practicable in order to maintain the principles of the existing mining and leasing laws, including the Mining Law of 1872.
Objective 8.2-4	Economic impacts to the mineral or renewable energy industry may directly impact Storey County tax revenues and County supported programs (such as the Storey

County School District). Therefore, federal and state agency plans or management recommendations should include a minerals or renewable energy industry economic, social, and environmental impact description (either brief or in-depth depending on the case needs).

Policy

Policy 8.3 Support the policy of the small miner exemption if the miner is offered the opportunity to develop the property. It is important to note that an annual assessment requirement for holding mining claims has led to unjustified land disturbances, which did not necessarily aid in the furtherance of properties’ resource development. Assessment requirements have since been revised and require the claim holder to pay an annual rental fee to the Bureau of Land Management, in lieu of doing work on the ground. There is an exemption for a small miner who holds ten claims or less. If the small miner chooses the exemption, \$100 of assessment work must be expended annually to hold the claim.

Objectives

Objective 8.3-1 Federal and state regulators should work closely with small miners to ensure that permitting costs and complexity do not prevent the implementation of this option.

Policy

Policy 8.4 Mineral, geothermal, solar, and wind energy operations should be consistent with best management practices for the protection of the environmental qualities and the multiple uses of public lands, including for the protection of the Virginia City National Historic Landmark.

Policy

Policy 8.5 Mine operation and reclamation should be held to the appropriate standards to protect the environmental qualities and multiple uses of public lands.

Objectives

Objective 8.5-1 Storey County will review, comment, and participate in the formulation and approval of operating, mitigation, or reclamation plans, and hear and act on special use permits on federal or state actions or changes significant to the subject industry in the county.

Objective 8.5-2 Reclamation of mine, exploration, and renewable energy sites should be coordinated with the Board of County Commissioners. Options should be considered for post-

operation use of buildings, access roads, water developments, and other infrastructure for further economic development by industry as well as historic and other uses pursuant to the Recreation and Public Purposes Act.

Objective 8.5-3 Mine site and exploration reclamation standards should be consistent with the best possible post-mine use for each specific area. Specific reclamation standards should be developed for each property rather than using broad-based universal standards. Private properties (e.g., patented claims) should be reclaimed to the standard and degree set forth by Storey County Codes supported by findings of fact and that are reasonably more restrictive than state laws and regulations. Post-operation reclamation standards for geothermal, solar, and wind energy development should be the same as applicable.

Objective 8.5-4 Federal land management and state agencies should continue to enforce existing reclamation standards to ensure there is no undue degradation of the public lands.

Objective 8.5-5 Abandoned mines should be properly sealed through a cooperative agreement between Storey County, the Bureau of Land Management, the Nevada Division of Minerals, mining companies, and private land owners. Emphasis should be placed on those mines in close proximity to communities and high-use recreational areas. Emphasis should also be on methods of abatement, such as gates, fences, and bat cupolas that leave historical remnants of the mines for safe public viewing.

Policy

Policy 8.6 Federal, state, and county governments should continue to collaborate to provide sources of sand, gravel, topsoil, rock, and other mineral materials for local communities. County, state, and federal agencies should jointly plan for the efficient development and use of material sites for both the government agencies and the private sector.

Policy

Policy 8.7 Storey County supports transportation of minerals and mining products over federal, state, and county roads and highways, given appropriate public safety precautions, and that the County is reimbursed for associated repairs and improvements on its roads.

Goal 9: Support renewable and alternative energy development in Storey County.

Policy	
Policy 9.1	The development of renewable and alternative energy generation is encouraged.
Objectives	
Objective 9.1-1	Coordinate planning to integrate related federal, state, and local planning documents and processes and expedite the permitting and evaluations needed for project approval.
Objective 9.1-2	Support state and federal policies that encourage large and small-scale renewable energy operations.

Policy	
Policy 9.2	The installation of renewable energy generation facilities for public buildings, e.g., schools, community centers, and government offices, is encouraged.
Objectives	
Objective 9.2-1	Promote the use of public funds (e.g., U.S. Department of Agriculture) renewable energy grants or bonds, to fund the implementation.

Policy	
Policy 9.3	Renewable and alternative energy resources should be considered in a manner that complements other environmental and cultural resources. Efforts should be undertaken to ensure a balance between renewable and alternative energy development and the protection of other resources, such as the Virginia City National Historic Landmark and viewshed, that make Storey County attractive to residents and visitors.

Policy	
Policy 9.4	<p>The installation of wind generators will consider wind rights and impacts.</p> <ul style="list-style-type: none"> • Wind generators will be installed away from residential uses, areas designated in this master plan for future residential uses, and the Virginia City National Historic Landmark, in order to prevent adverse impacts to communities and historic resources. • Wind generators will be installed far enough away from property lines such that the wind stream energy is fully reconstituted when the wind crosses the property line. • Wind generators will be installed far enough away from other structures to prevent the wind generator-induced turbulence stress on those structures. An approximate guideline for “far enough away” is ten turbine rotor (blade) diameters.

Policy	
Policy 9.5	<p>The installation of solar thermal plants that use water, e.g., in cooling towers, shall consider available water resources and not lower the water table. When a wet cooling tower is used, the total land area for the solar thermal site must be large enough such that the annual average water usage does not exceed 0.25 acre-feet (e.g., if 1,000 acre-feet are required per year, then the total land area for the site must be at least 4,000 acres).</p>

Policy	
Policy 9.6	<p>The development of corridors for energy transmission and distribution is encouraged. Coordinated planning is needed to integrate related federal, state, and local planning documents and processes for obtaining the permits and right-of-way for the corridors.</p>

CHAPTER 5

Population



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5.1 Introduction

This chapter examines population and demographic trends and forecasts of population changes that may affect land uses supported by this master plan through 2040. The content of this chapter will enable the County to develop policies and plan for the needs of existing and future populations. It also provides a base from which other elements of this master plan, such as housing and economic development, may be formulated.

Many changes have taken place in Storey County since adoption of the 1994 Master Plan. Storey County's past industries including brothels, mining, and tourism are now shadowed by massive growth in manufacturing, distribution, technology, and associated commercial enterprises. While Storey County remains rural, it has become a major economic player in the State of Nevada and in the western United States. This is largely due to the expansion of the Tahoe-Reno Industrial Center, which has become an economic hub attracting employment and residents to the area.

Over the past two decades, economic expansion in Storey County and western Nevada resulted in substantial population growth in the county. Shifts in population distribution and demographics in the county have also occurred. Once concentrated in Gold Hill and Virginia City, the county's population is now distributed almost equally throughout half of its land mass.

Population and demographic trends identified in the past two decades are expected to continue. However, as economic growth and employment opportunities increase, the potential for deviation in past trends may become a growing element affecting land use planning. Regardless of trend changes that may occur, economic, social, and ecological responsibility and sustainability will remain at the forefront in determining the rate and pattern of population growth in the county.

With the completion of a Housing Needs Assessment and with a County focus on providing suitable areas for potential additional housing to balance with the increase of developed industrial properties, the population and demographic trends may change significantly in the future. For this master plan update, this chapter is assessing what has happened in the past, where the county stands at the moment, and what the near future may bring. Projections for population at this time are based on the existing trends of population and demographics, with data provided by the US Census Bureau and Nevada State Demographer (see Appendix F for State Demographer projections). If new housing tracts come to fruition, it would be appropriate to analyze this topic more thoroughly in future Master Plan updates.

5.2 Population & Demographic Trends

5.2.1 Population Trends

Similar to other “boom-and-bust” mining towns in Nevada, Storey County's early history was marked by volatile population swings. Following the mining bonanza in the late nineteenth and early twentieth centuries, the county's population steadily declined. Between the 1920s and 1940s, nearly half of its population was lost, and by 1960 it had decreased to a mere 568 residents (U.S. Census Bureau, 1960). This trend continued through most of the 1970s.

By the 1980s, the county population stabilized and began to trend upward. Consistent positive growth was seen in the 1990s. From 1980 to 2000, the county’s population grew 126 percent from 1,503 to 3,399 residents. Substantial growth was also seen in the following decade, especially between 2004 and 2007 when western Nevada, during the “housing-boom,” experienced an influx of new residents arriving other states. Table 5.2-1 lists data indicating the upward population trend and Figure 5.2-1 illustrates the outlier that represents the upsurge. Following the downturn of the national economy beginning in 2007, the county’s rate of population decreased from the brief peak period. From 2010 to 2022, the county’s population remained relatively stable, increasing slightly by approximately 2 percent over the period.

Table 5.2-1: County & Regional Population Estimates

Year	County & Regional Population					Percent Change
	2000	2010	2015	2020	2022	
Storey County	3,399	4,016	3,929	4,086	4,095	20.48
Carson City	52,457	55,375	54,482	55,244	58,249	11.04
Douglas County	41,259	47,042	47,259	48,486	49,476	19.91
Lyon County	34,501	51,515	51,657	55,667	59,435	72.27
Washoe County	339,486	422,528	446,903	486,492	496,745	46.32

Source: U.S. Census Bureau, 2010-2022 American Community Survey: DP05 ACS Demographic and Housing Estimates; U.S. Census Bureau, 2000 Decennial Census: DP1: Profile of General Demographic Characteristics.

Figure 5.2-1: Percent Change of County Population 2000-2022

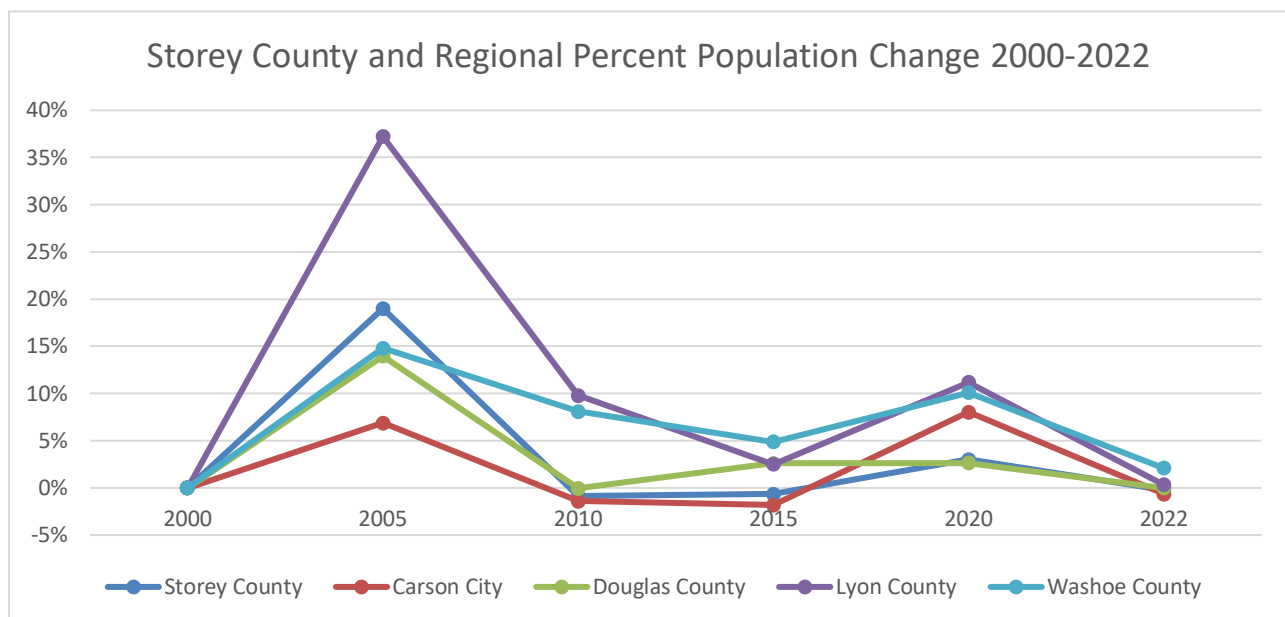
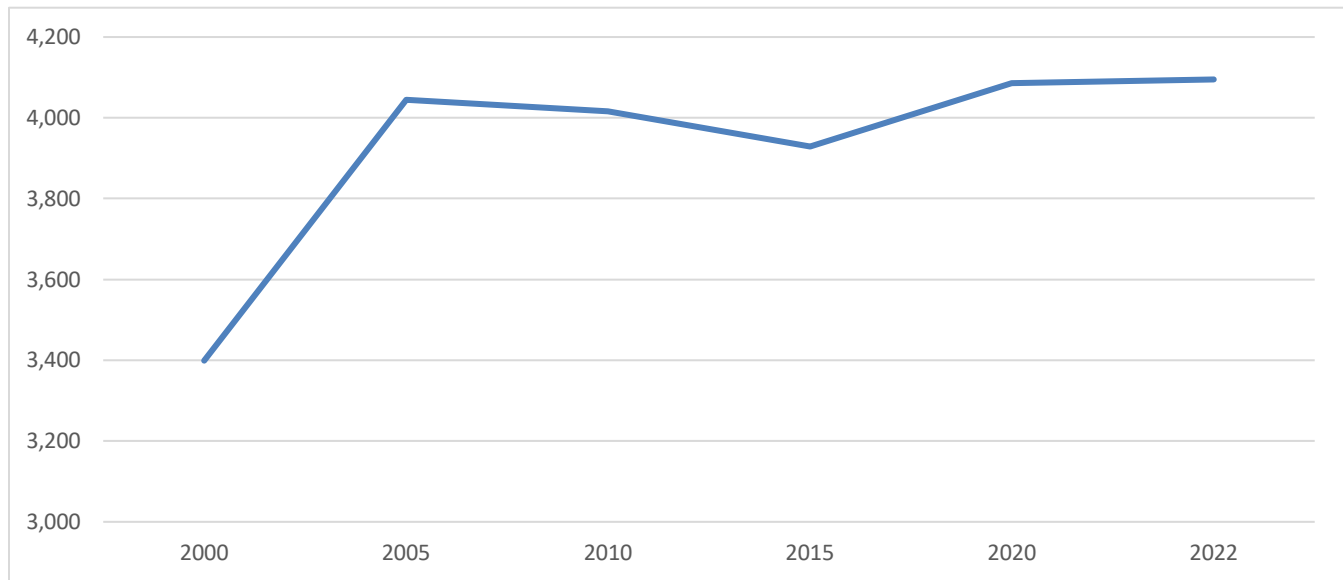


Figure 5.2-2: Storey County Population 2000-2022



5.2.2 Growth Pattern

Substantial residential growth occurred in Storey County over the past three decades. Through good land use planning policy and practices, conformance with the master plan, and strong leadership, Storey County allowed sustainable residential and commercial development to occur while preventing encroachment of suburban sprawl from its growing neighbors.

Between 2000 and 2023, Storey County's population increased 20.48 percent. The county's growth was 15.84 percent lower than the increase experienced in Washoe County. Lyon County was the outlier in the region, which experienced a population growth of approximately 72.27 percent during that same period; this increase was 51.79 percent higher than the increase of Storey County.

Storey County recognizes the need to maintain a sustainable future for its residents, employees, businesses, and natural environment. When forecasting potential residential growth, the availability of water, geographic constraints (particularly the topography of the region), transportation interconnection, of public services, and local and regional sustainability will be at the forefront of planning policy and decision making. Conforming to best development practices will ensure a sustainable future and enhance services and quality of life in the county's existing towns and population centers.

5.2.3 Population Distribution

Table 5.2.2 lists U.S. Census Bureau and Nevada State Demographer's Office reported population trends for Storey County and its two unincorporated towns, Gold Hill and Virginia City. Population estimates for the county's remaining communities were derived by multiplying the number of dwellings therein by the average county household size.

Most growth between 1994 and 2024 occurred as in-fill within the county's existing communities. Lockwood had the highest percentage growth in the county between 1994 and 2005. This trend sharply dropped off after 2005 with the build-out of the Rainbow Bend residential planned unit development.

Substantial growth was seen in the Highlands between 2000 and 2023. Virginia City, Lockwood, and Mark Twain populations remained relatively consistent during this period. As housing units did not significantly change in these areas, the decrease is assumed to be related to household size and an aging population.

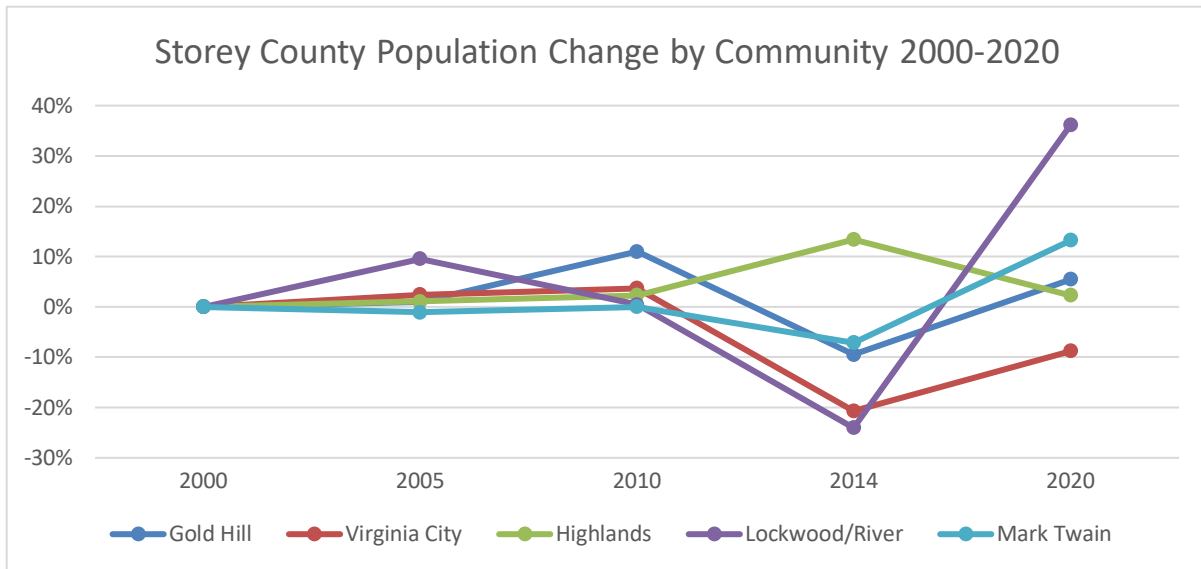
Table 5.2-2: Population Distribution of Storey County and Communities

Population Distribution by Community							
	2000	2005	2010	2014	2020	2022	Total Change
Storey County	3,399	4,045	4,016	3,934	4,086	4,095	+696
Gold Hill	198	200	222	201	212	228	+35
Virginia City	988	1,012	1,049	832	759	918	-3
Highlands*	1,192	1,205	1,233	1,398	1,430		
Lockwood/River*	1,171	1,283	1,289	979	1,333		
Mark Twain*	750	742	742	689	780		
<i>Household Size</i>	2.38	2.27	2.27	2.1	2.38		

Sources: Storey County Assessor’s Office; U.S. Census Bureau 2000-2022; Nevada State Demographer 1994-2020, Certified Population Estimates.

*Assessor’s Office earliest available housing data from which community estimates were based. Figures provided are estimates only based on household size and the number of households in each community – estimates provided may not be reflective of actual community numbers and will not match the census provided total population figure. Note, data for the year 2022 is not available.

Figure 5.2.3: Storey County Population Change by Community 2000-2020



Population growth in each community is constrained by local geography, lack of public services and infrastructure, and limited availability of water. These constraining factors make each community in the county incapable of accommodating rapid population growth. Residential development that occurs outside of existing population centers and in unsustainable areas such as areas without available water not identified in this master plan are considered to have a substantially negative impact on the county’s existing land uses, natural resources, sustainability, existing quality of life, and future economic development.

5.2.4 Demographic Trends

5.2.4.1 Gender and Ethnic Distribution

From 2000 to 2022, the disparity in population between males and females changed from 2.4 percent-more females than males, to 5 percent more males than females. By 2042, this disparity is projected to decrease to approximately 2.9 percent. This disparity accounts for a projected difference of 509 more males than females by 2042. Trends in the population growth between males and females are more extreme than those seen throughout the Nevada as a whole. This disparity may be a result of the available jobs in the region – largely influenced by the expanding Tahoe-Reno Industrial Center attracting employees of traditionally male- dominated sectors such as manufacturing, transportation, and technology.

The most predominant ethnic group in Storey County remains individuals of White descent, who accounted for 83.8 percent of the population in 2022. Non-White ethnicities accounted for 16.2 percent of the total county population. The population gap between White and non-White narrowed slightly between 2000 and 2022. Hispanics at 5.4 percent of the overall county population in 2022 were the largest minority group. The county’s remaining minority populations were between 0.1 and 2.0 percent of the overall population.

Tribal lands are of a sovereign nation in the United States, of which Storey County and this master plan has no legal jurisdiction. However, Storey County will continue to maintain its close relationship with the Tribe and coordinate with its membership on local and regional land use matters. Table 5.2-3 lists Gender and Ethnic Distribution data for 2000 through 2022.

Table 5.2-3: Storey County Gender & Ethnic Distribution, 2000-2022

	2000	2010	2015	2020	2022	Change in Percent of Population (2000-2022)
Total Population	3,399	4,016	3,929	4,086	4,095	+20.5%
Gender Distribution						
Male	1,762 (51.8%)	2,018 (50.2%)	1,882 (47.9%)	2,143 (52.4%)	2,149 (52.5%)	+ .7%
Female	1,637 (48.2%)	1,998 (49.8%)	2,047 (52.1%)	1,943 (47.6%)	1,946 (47.5%)	- .7%
Ethnic Distribution						
White	3,161 (97.6%)	3,668 (91.3%)	3,703 (94.2%)	3,422 (83.7%)	3,433 (83.8%)	-13.8%
Hispanic	174 (5.1%)	264 (6.6%)	147 (3.7%)	106 (2.6%)	222 (5.4%)	+ .3%
Black	10 (0.3%)	40 (1.0%)	17 (.4%)	112 (2.7%)	81 (2.0%)	+1.7%
Asian	34 (1.0%)	22 (0.5%)	57 (1.4%)	34 (0.8%)	45 (1.1%)	+ .1%
American Indian	49 (1.4%)	69 (1.7%)	66 (1.6%)	17 (0.4%)	4 (0.1%)	-1.3%
Hawaii/Pacific Is.	5 (0.1%)	15 (0.4%)	7 (.1%)	0 (0.0%)	0 (0.0%)	- .1%
Other	7 (0.2%)	0 (0.0%)	8 (.1%)	11 (0.3%)	28 (0.7%)	+ .5%

Source: U.S. Census Bureau and Bureau of American Community Survey 2000-2022

Note: This graph does not include a breakdown of individuals who identify as two or more races. Ethnic distribution percentages may not reflect 100% of the population.

5.2.4.2 Age and Household Distribution

Storey County's aging population trend is similar to that of its neighboring counties and the state of Nevada. Between 2000 and 2022, Storey County's median age increased approximately 48.14 percent from 37.6 to 55.7 years old. By 2022, its median age was the highest in the state of Nevada, with the next closest being Esmerelda County at a median age of 55 years. Storey County's 65-and-older group was 13 percent of the county's total population in 2000 and has since increased up to 37.3 percent of the total population. Table 5.2-4 lists data for median age trends and Table 5.2-5 lists age distribution.

While Storey County's senior population is increasing, its school-aged population is decreasing. Between

2000 and 2022, the percentage of individuals 18 years of age or younger within Storey County has decreased by 5.4 percent since 2000 declining from 21.6 percent of the population in 2000 to 16.2 percent in 2022. The U.S. Census Bureau and Nevada State Demographer estimates concur with the downward trend and anticipate it to continue through 2042. School enrollment data is provided in Table 5.2-6 and household distribution data is provided in Table 5.2-7.

The average household size in 2020 was 2.38 persons per household, the same average household size experienced in 2000; however, the average household size decreased to a low of 2.1 in 2014 before increasing back to 2.38 persons per household in 2020. Renter-occupied households experienced a drastic increase in household size, increasing from 3.01 individuals in 2010 to 4.68 individuals in 2022. Family households with children has decreased by 16.7 percent from 1990 to 2022, while family households without children have increased by 71.73 percent from 1990 to 2022. Non-family households have grown by 149.2 percent from 1990 to 2022. Non-family households with children have decreased since 2000, dropping by approximately 58.1 percent from 2000 to 2022.

The aging pattern seen in Storey County and throughout the state of Nevada is partially due to “baby-boomers” entering retirement age, stabilizing birth rates, longer life expectancy, and younger generations tending to have fewer children. The county’s close proximity to surrounding metropolitan areas and health care facilities, as well as the state of California, also attracts out-of- state retirees, whereas younger populations tend to move to the metropolitan areas. The U.S. Census Bureau estimates that 72.5 percent of Nevada’s residents were born outside the state of Nevada in 2022. This is consistent with the composition of Storey County’s population, of which 73 percent of Storey County residents were born outside the state of Nevada in 2022. The ageing trend is exacerbated by the county’s challenging geography and climate, and relatively few amenities when compared to neighboring metropolitan areas, which tend to discourage young families with children.

With the average age in the county is approaching 56 years of age, and shrinking family size and school enrollment, the County might put special attention to attracting a younger demographic to ensure younger generational growth keeps pace with an aging demographic. The Painted Rock mixed-use development and potential housing opportunities that may be facilitated by this master plan in the southern areas of the county should help address this issue in part of the county by providing more attractive housing options to the region to attract families in an area of anticipated growth. Continued expansions of the Tahoe- Reno Industrial Center will help attract more working- age residents to the county.

There are improvements to county infrastructure and services that may appeal to younger demographics while not adversely impacting the existing communities of the county. The allowance of accessory dwelling units is currently an acceptable practice in certain areas of the county, and one which should be explored further as may be appropriate. Accessory dwelling allowances should be encouraged and expanded to allow family members to share land and housing, and where appropriate, facilitate two-family living on a single parcel containing multiple dwellings. The county, pursuant to a Memorandum of Understanding with CC Communications, is currently developing fiber broadband internet infrastructure throughout the county. These and other improvements and entitlements will help attract younger generations and contribute to their successful establishment in the county. The County should encourage opportunities are presented to implement these ideas.

Table 5.2-4: Median Age Trends

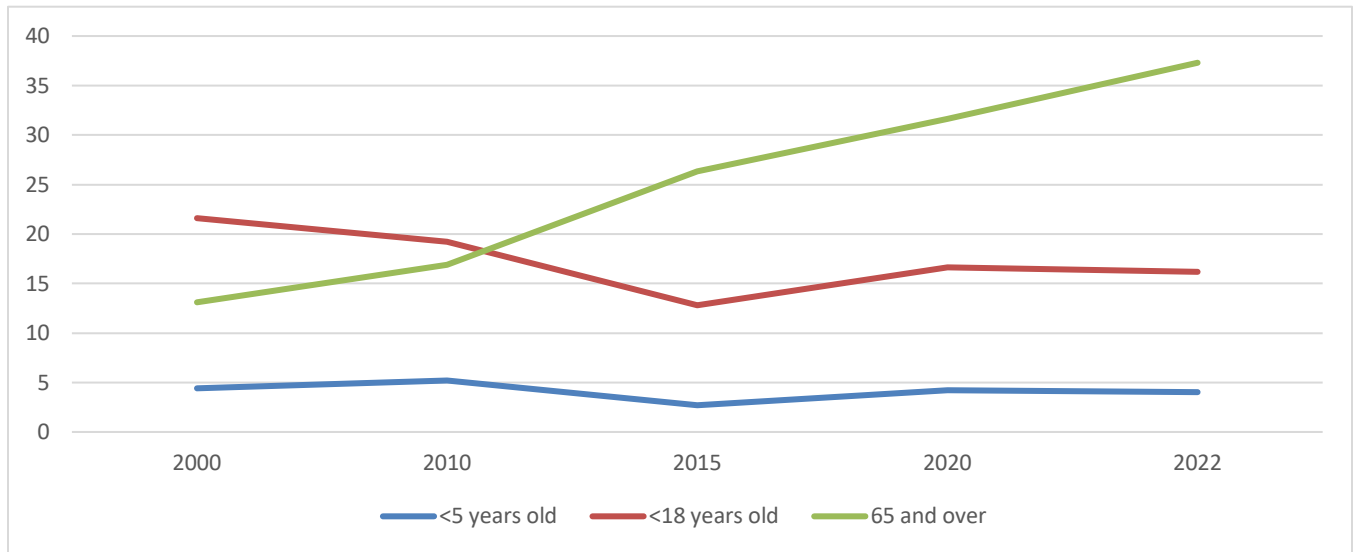
Location	2000	2010	2013	2020	2022	Percent Change
United States	35.3	37.2	37.3	38.2	39	18.54
Nevada	35.3	36.3	36.6	38.2	39	17.11
Elko	31.2	33.4	33.3	34.7	34.9	18.7
Lincoln	33.4	39.9	35.7	43.7	40.6	21.56
Humboldt	33.4	36.2	35.7	37.1	37	20.91
Clark	34.4	35.5	35.8	37.5	38.3	15.71
Washoe	35.6	37.0	37.2	38.5	39.2	16.67
Lander	28.7	37.1	37.3	37.6	40	39.37
Eureka	38.3	42.4	38.3	42.5	48.4	45.34
Churchill	34.7	39.0	39.2	40.5	39.7	20.30
Pershing	34.4	41.0	40.4 (μ)	42.6	40.4	27.44
White Pine	37.7 (μ)	40.8	40.9	40.8	41.4	22.48
Lyon	38.2	40.9 (μ)	41.6	43.9	43.2	18.68
Carson City	38.7	41.7	41.9	42.2	42.1	15.66
Esmeralda	45.1	52.9	47.9	54.6	55	53.63
Douglas	41.7	47.4	47.9	52.9	53.5	47.79
Nye	42.9	48.4	49.7	53.1	52.9	44.93
Mineral	42.9	49.2	50.1	53.3	39.8	17.4
Storey County	44.5	50.4	54.4	53	55.7	48.14

Source: U.S. Department of Commerce, "U.S. Census Bureau, 2000, 2010, 2013, 2020, and 2022 American Community Survey: S0101 Age and Sex
 Mu (μ) indicates the mean average age in each county category.

Table 5.2-5: Age Distribution

	2000		2010		2015		2020		2022		Change in Percent
	count	%	count	%	count	%	count	%	count	%	
Total	3,399	-	4,016	-	3,929	-	4,086	-	4,095		
<5 years old	150	4.4	209	5.2	106	2.7	172	4.2	164	4.0%	-.4%
<18 years old	735	21.6	771	19.2	503	12.8	679	16.6	664	16.2%	-5.4%
65 and over	446	13.1	679	16.9	1,033	26.3	1,292	31.6	1526	37.3%	+24.2%

Figure 5.2-4: Percent of Storey County Population by Age



Source: U.S. Census 1990, 2000, 2010, 2015, 2020, and 2022

Table 5.2-6: School Enrollment, 2003 - 2022

	2003-04	2004-05	2005-06	2006-07	2011-12	2012-13	2021-22	Percent Change 2003/04 – 2021/22
District	468	478	450	454	408	415	432	-7.69%
VCHS	137	152	150	155	133	132	155	+13.1%
VCMS	122	118	114	117	93	92	102	-16.4%
HGES	143	140	127	123	131	139	127	-11.2%
HES	66	68	59	59	51	52	48	-27.3%

Source: 2003-2022 Storey County School District (second enrollment month of each year)

VCHS = Virginia City High School

VCMS = Virginia City Middle School

HGES = Hugh Gallagher Elementary School

HES = Hillside Elementary School

Table 5.2-7: Household Distribution, 2000 - 2022

	2000	2010	2013	2020	2022	Percent Change 2000-2020
Total household	1,462	1,826	1,843	1,704	1,692	68.19%
Family Households	969	1,350	1,161	1,048	907	31.26%
<i>With children <18 years</i>	319	598	385	271	263	-16.77%
<i>Without children <18 years</i>	650	752	776	777	644	71.73%
Non-Family Households	493	476	682	656	785	149.2%
<i>With children <18 years</i>	105	27	124	79	44	-
<i>Without children <18 years</i>	374	449	558	577	741	195.22%
Average Household Size	2.32	2.20	2.14	2.38	2.41	-1.23%

Source: U.S. Census Bureau 2000-2022; American Community Survey S1101 – Households and Families

*Insufficient or unreliable data

5.2.4.3 Economic Distribution

Economic development and job creation influences local population trends by attracting working-age (19 to 55 years of age) people. Areas with strong employment typically have higher average household size, lower median age, and a higher percentage of family households. Storey County on the other hand has a high level of employment relative to its population size but shows some demographic trends that are similar to counties with older populations and less employment opportunities.

The median household income in Storey County was the third-highest in the state at \$86,932 per year. Only Elko and Lander counties, each with a disproportionate number of high-wage mining jobs, have greater median incomes. This demographic trend is partially a result of a decade of significant economic and employment growth in Storey County in relation to its population. Comparative economic measures are provided in Table 5.2-8.

Table 5.2-8: Comparative Economic Measures

Measure	Carson City	Douglas County	Lyon County	Storey County	Washoe County
Median Household Income 2022	\$67,465	\$84,262	\$70,026	\$86,932	\$80,125
Per Capita Income 2022	\$37,677	\$49,115	\$36,330	\$44,539	\$44,448
Average Weekly Wage 2022	\$1,297/week	\$1,620/week	\$1,346/week	\$1,671/week	\$1,540/week
Number of Employees 2022	27,320	21,687	26,233	1,345	255,160
Percent of Employees to Population 2022	57%	50.4%	54.3%	38.3%	62.7%
Average Persons per Household 2022	2.38	2.34	2.54	2.41	2.47

Sources: Bureau of Labor Statistics; Nevada Department of Employment and Rehabilitation; U.S. Census, U.S. Bureau Department of Housing and Urban Development.

The population living at poverty levels in Storey County have improved from 2013-2022. Poverty levels are consistently decreasing across Nevada as a whole. Trends in population growth and poverty levels indicate an improved economy within the county, even when compared to other similar counties. If current trends continue, an increasing population in conjunction with a decrease in poverty and an increase in median income will contribute to an improved economy for Storey County. Table 5.2-9 provides data for comparison of population living at certain poverty levels for the period 2013-2022.

Table 5.2-9: Population and Poverty Levels, 2013-2022

Year	Population	Below .50 Poverty Level	.50 to 1.25 of Poverty Level	1.25 to 1.50 of Poverty Level	1.50 to 1.85 of Poverty Level	1.85 to 2.00 of Poverty Level
2013	3,936	6.8%	4.6%	3.5%	6.7%	2.1%
2014	3,917	6.1%	6.1%	1.4%	5.5%	3.2%
2015	3,915	4.1%	4.9%	2.1%	6.1%	3.9%
2016	3,925	3.2%	7.8%	2.2%	2.6%	5.0%
2017	3,877	3.8%	8.1%	5.3%	3.4%	4.7%
2018	3,927	4.5%	7.9%	3.8%	2.9%	4.2%
2019	3,970	5.0%	5.8%	2.7%	3.9%	3.2%
2020	4,070	6.1%	5.5%	1.8%	3.2%	1.4%
2021	4,032	5.5%	8.6%	3%	2.9%	1.4%
2022	4,083	3.4%	7.2%	.5%	3%	1.6%

Source: US Census Bureau/American Community Survey. "S1701: Poverty Status in the Past 12 Months"
Multiple years: 2009- 2013 through 2016-2022 American Community Surveys.

5.3 Population & Demographic Forecasts

This section uses past and current population, economic, workforce, and other data to estimate potential changes in the county population over the next 20-year period. It also forecasts potential population changes that are expected to occur in each of its existing population centers. Potential factors that may result in deviations from the forecast are also summarized.

The population forecast is based on analyses of quantitative and qualitative data. Information was obtained from the U.S. Census Bureau and Nevada State Demographer's Office; County Assessor and Clerk's Office; Storey County School District; regional and state employment and economic development agencies, and other sources. It includes population counts, estimated population projection, property owner information, school enrolment counts, and economic and employment data. Community growth patterns, known services and infrastructures, and findings from community workshops were also used in formulating the data-driven and ground-based model from which realistic estimates of change may be determined.

5.3.1 State Demographer & Historic Growth Rate Forecasts

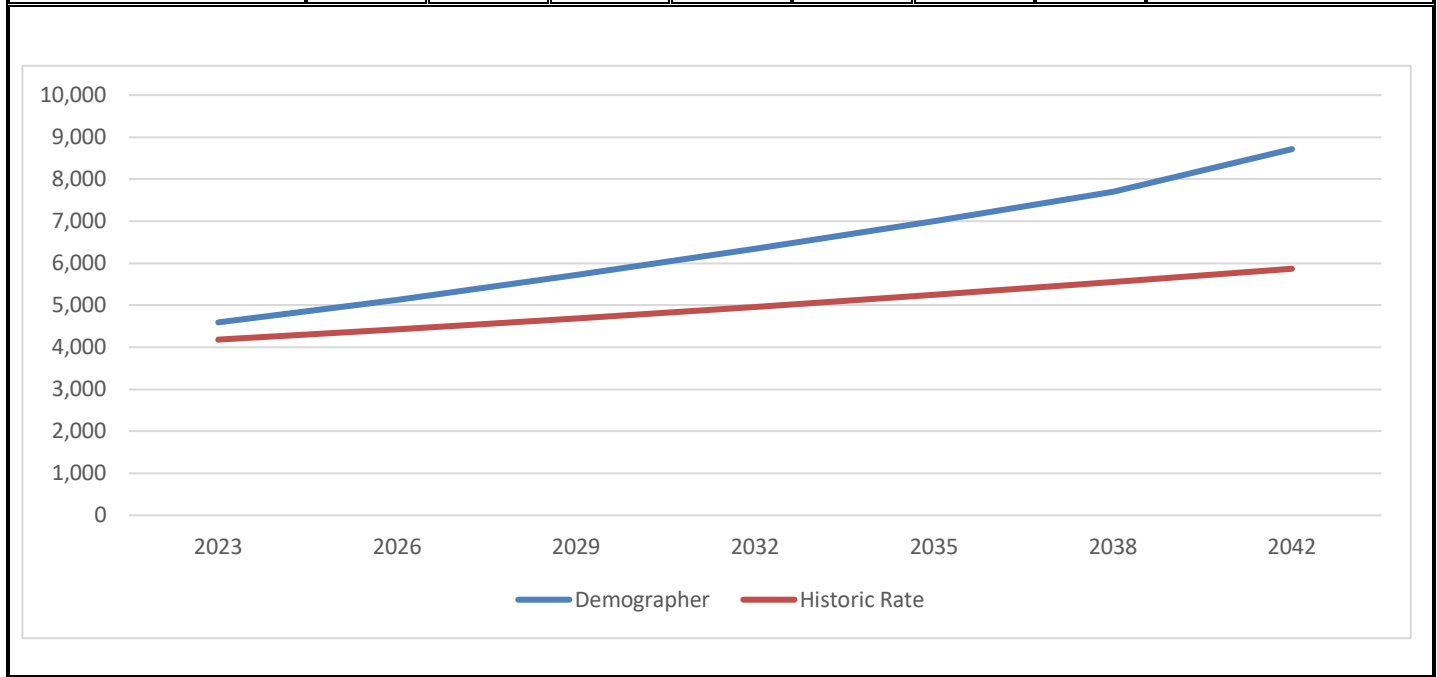
Forecast information from the Nevada State Demographer is provided in Table 5.3-.1. Data indicate projected population growth in the county between 2023 and 2042 as developed using the Regional Economics Model, Inc. estimation model. The Demographer's forecast addresses Nevada's 17 counties and 23 major economic sectors to estimate future population trends. The forecast relates the economic and demographic characteristics of Nevada's counties to each other and the United States as a whole. Table

5.3-1 also provides the flat historic growth rate in the county and compares it to the Demographer’s forecast. The flat rate includes the average annual growth rate of 1.9 percent during the 24-year period.

The Nevada State Demographer’s projection indicates population growth in the county over the next 14-year period to be similar to earlier trends. An approximate increase from 4,592 persons in 2023 (the U.S. Census Bureau reports 4,095 persons in 2022) to 8,715 by the year 2042 is expected. The flat historic rate shows a slower rate of increase. From the base 4,182 population in 2023, the flat historic growth rate shows an estimated population of 5,868 by the end of the 24-year period. The difference between the demographer’s projections and the flat historic growth rate is approximately 49.5 percent with the demographer’s model estimating more than 2,847 people at the end of the forecast period.

Table 5.3-1: Population Projections

	2023	2026	2029	2032	2035	2038	2042	Percent Change
Demographer	4,592	5,131	5,716	6,340	7,002	7,706	8,715	89.8%
Historic Rate	4,182	4,424	4,682	4,954	5,241	5,546	5,868	40.3%



Source: “Demographer” based on Nevada State Demographer’s Office, Nevada County Population Projections for 2023 to 2042.

“Historic Rate” based on 1.9 percent growth reported by the U.S. Census and the Nevada State Demographer.

Note: Population percent increases are the sum of three-year increments.

5.3.2 Key Elements Influencing Population Change

The rate at which the state and county grows economically and in population is influenced by economic, social, and geographic factors. The availability of jobs, education opportunities, and qualified persons to fill local employment needs influence population growth. Local and regional infrastructure capacity such as roads, public transportation, and utilities, and the availability of water and other natural resources will also affect the area's ability to diversity its citizen base and attract business.

The following elements were evident in Storey County over the past two decades and are expected to remain influential factors over the next 20-year period:

Factors Limiting Potential Growth

- Available water
- Transportation/connectivity
- Capacity for public services
- Access to higher education and training
- Limited low-cost housing
- Declining family households with children

Factors Contributing to Potential Growth

- Overall job growth
- Growing economic diversification
- Local quality of life
- Positive State and local tax climate
- Proximity to large metro/industrial areas
- Continued in-migration of retirees

5.3.2.1 Economic Development

Storey County's population has grown at a rate somewhat slower than its neighboring counties. However, like other counties in western Nevada a significant portion of its growth was from retirees arriving from out-of-state. For example, the percentage of individuals 65 years or older increased by 24.2 percent since 1990. Disproportionate growth by this sector limits available workforce and other human resources needed by existing and prospective businesses. This trend also causes lower career opportunities for new working-age families and young generations desiring to remain living in their home-county.

Changing this demographic trend will largely depend upon the ability of the county to attract and retain business. Over the past decade the county has endeavored to diversify its economy, provide education and training opportunities, and work collaboratively with regional entities to improve economic conditions in the county and Nevada. Its efforts have yielded success. Between 2000 and 2024, Storey County attracted over 100 large businesses, including many Fortune 500 companies, and created a diversified commercial and industrial employment base for about 18,000 people with several thousand more to be hired in the next couple of years. Most of these companies are located at the Tahoe-Reno Industrial Center in McCarran. Many of these jobs provide higher income opportunities, which can help attract more working age individuals to the county, diversifying the age pool and increasing the potential for more families to join the community.

Economic trends in Virginia City remain centered on tourism and hospitality and promote mostly seasonal, part-time, and low-wage jobs. However, mining had been a substantial contributor to medium- and high-wage jobs on the Comstock and nearby communities. Because the success of mining, particularly precious metal mining, is strongly linked to the commodities market, it is not clear how long this sector will remain influential in the local economy and population trends.

Employment in Storey County has increased significantly over the past two decades. Overall jobs by industry have increased from 2010 to 2021. The largest increase in jobs comes from the manufacturing industry, which increased by 11,000 jobs from 2010 to 2021. The largest decrease in jobs came from the government and, public administrative industries, which decreased by 102 jobs. Nearly every industry experienced a growth in jobs, while only three industries (government; public administration; arts, entertainment, recreation, and other services) experienced a decrease. In a similar vein, jobs by occupation experienced an increase in every occupation except for the community and social services sector. The largest increase came from the production sector, largely due to the expansion of the Tahoe-Reno Industrial Center.

Table 5.3-2 lists number of jobs by NACS Code for 2010 and 2021 and Table 5.3-3 lists number of jobs by SOC Code for 2014 and 2020.

Table 5.3-2: Number of Jobs by NAICS Code, 2010 and 2021

NAICS 2-Digit Code	Type*	Store		Nevada	
		2010 ^y	2021	2010	2021
11: Ag, Forestry, Fishing and Hunting NSR		23	81	4,276	6,906
21: Mining, Quarry, Oil/Gas Extraction NSR		62	62	12,338	15,021
22: Utilities	SR	68	89	4,323	4,064
23: Construction	NSR	157	924	69,573	106,313
31: Manufacturing	NSR	394	11792	39,633	60,079
42: Wholesale Trade	SR	41	137	34,155	37,396
44: Retail Trade	SR	85	92	133,044	152,036
48: Transportation, Warehousing	SR	1,302	4419	47,811	88,362
51: Information	SR	<10	287	13,764	15,535
52: Finance and Insurance	SR	<10	<10	35,387	42,833
53: Real Estate and Rental and Leasing SR		<10	24	27,212	32,698
54: Professional, Scientific, Tech Services	SR	44	116	56,604	75,483
55: Mgmt. of Companies/Enterprises	SR	<10	11	18,290	23,851
56: Administrative and Support	SR	169	285	79,298	99,981
61: Educational Services	SR	<10	<10	12,333	16,677
62: Health Care and Social Assistance	SR	12	148	98,934	139,109
71: Arts, Entertainment, and Recreation	SR	72	38	30,960	34,167
72: Accommodation, Food Services	SR	116	153	286,042	234,078
81: Other Services (except Public S R Admin)		152	65	52,833	63,106
90: Government, Public Admin	PA	181	79	171,021	179,845
99: Unclassified Industry	-	<10	13	690	16,300

Source: Nevada Economic Assessment Project: Socioeconomic Baseline Report, Storey County; 2022

Table 5.3-3: Number of Jobs by SOC Code, 2014 and 2020

SOC 2-Digit Code	Type *	Storey		Nevada	
		2014	2020	2014	2020
11-Management	1	230	1,411	66,542	81,891
13-Business and Financial Operations	1	98	689	47,443	63,998
15-Computer and Mathematical	1	29	365	18,867	24,741
17-Architecture and Engineering	1	38	866	12,435	16,735
19-Life, Physical, and Social Science	1	32	150	9,465	10,996
21-Community and Social Service	1	41	39	12,775	16,332
23-Legal	1	<10	13	9,254	9,793
25-Education, Training, and Library	1	11	33	53,580	56,200
27-Arts, Design, Entertain, Sports, Media	1	27	66	25,529	26,462
29-Healthcare Practitioners and Tech	1	<10	29	52,244	73,133
31-Healthcare Support	2	25	59	39,998	47,579
33-Protective Service	2	20	51	40,850	40,985
35-Food Preparation and Serving Related	2	123	140	169,329	147,370
37-Building/Grounds Cleaning, Maint.	2	53	84	81,492	66,739
39-Personal Care and Service	2	48	49	73,370	65,585
41-Sales and Related	3	182	544	144,930	146,028
43-Office and Administrative Support	3	649	1,970	180,890	183,115
45-Farming, Fishing, and Forestry	4	13	61	2,592	4,678
47-Construction and Extraction	4	228	723	64,644	90,242
49-Installation, Maintenance, and Repair	4	193	734	52,440	56,044
51-Production	5	594	5,515	50,038	52,106
53-Transportation and Material Moving	5	2,077	4,324	113,340	129,189
55-Military	6	<10	<10	9,304	10,323
99-Unclassified	-	0	0	0	0

Source: Nevada Economic Assessment Project: Socioeconomic Baseline Report, Storey County; 2022

5.3.2.2 Housing

Economic and employment growth and the availability of housing will affect the rate at which the county's projected population may deviate from the Demographer's forecast.

Between 2000 and 2022, the County enacted land use policy decisions on in-fill residential development and two large-scale planned unit development proposals. The County's actions to provide for residential

growth conformed to the 1994 and 2016 master plans and are indicative of the pattern of growth that may be permitted over the forecasted period of this master plan.

Construction of housing units has been steady over the years, with approximately 10 new dwelling units per year. With exception of several special use permits issued for single-family residents in remote parts of the county all were issued for in-fill development in existing population centers. Storey County's treatment of two proposals for planned unit developments in 2006 and 2007 also exemplify its position on balancing housing and population needs with policy and sustainability.

In 2006, a zone change for the Painted Rock mixed-use development was approved. The tentative proposal included a wide range of residential and commercial uses combined into one cohesive mixed-use development. The location, scale, and design-of the proposal were key elements in determining its conformance with the 1994 master plan and the potential positive and negative impacts that it may have on the county. Painted Rock has yet to be developed; however, the potential for a new population center shows promise for Storey County's expanding economy and size.

However, the opposite occurred in 2007 when the County denied a master plan amendment request for a 17,000-home development – named “Cordevista” – approximately two miles north of the Highlands. The planning commission's findings for denial cited the proposal's non-compliance with the master plan and zoning ordinance, inadequate evidence of available water for the development, and the potential for population growth beyond the county's ability to provide necessary services. The County prevailed in litigation against it by the developer in the District Court and the Nevada Supreme Court.

Since 2006 and since the adoption of the 2016 master plan, the county has recognized the need to facilitate housing that will serve the needs of the growing industrial development in Northern Nevada. This master plan continues to support expansive housing opportunity at Painted Rock. Additionally, this master plan recognizes the close-drive-proximity (roughly 35 minutes) of the greater Mark Twain-Flowery Range areas to Tahoe-Reno Industrial Center, as well as this area's gentle topography and close proximity to area utilities in supporting responsible residential growth.

Most housing units in Storey County are owner-occupied at 97 percent, with renters making up the remaining 3 percent (Table 5.3-4). Renter-occupied units peaked at 15.5 percent in 2016 and have trended down to their current rate. The majority of housing units are single unit (76.8 percent), with mobile homes / recreational vehicles making up 21.8 percent of the housing market. Only 1.4 percent of existing housing units are multi-unit (Table 5.3-5).

Since 2010, housing size has steadily increased, growing from 2.11 persons per household, to 2.42 persons per household in 2022 (Table 5.3-6). This could be seen as a sign that family sizes are increasing, or that housing affordability has resulted in individuals living together to offset increased housing costs.

Occupied housing units have decreased since 2010, going from 90.4 percent in 2010 to 86.2 percent in 2022. In contrast, housing occupancy has gradually increased across the state of Nevada as a whole, growing from 85.9 percent in 2010 to 89.9 percent in 2022 (Table 5.3-7).

Table 5.3-4: Housing Units and Percent Owned or Rented

Year	Occupied Housing Units	Owner Occupied	Renter Occupied
2010	1,826	90.20%	9.80%
2012	1,839	94.70%	5.30%
2014	1,823	92.90%	7.10%
2016	1,752	84.50%	15.50%
2018	1,598	87.50%	12.50%
2020	1,704	96.50%	3.50%
2022	1,692	97%	3%

Source: US Census Bureau/American Community Survey. "DP04: Selected Housing Characteristics" Multiple years: 2010 through 2022 American Community Surveys.

Table 5.3-5: Housing Types

Year	Single Unit	2- to 4-Units	5- to 19-Units	20+ Units	Mobile Home, RV, etc.
2010	78.10%	1.20%	0.00%	0.00%	20.70%
2012	75.10%	0.00%	1.40%	0.00%	23.50%
2014	76.90%	1.90%	1.50%	0.00%	19.70%
2016	75.40%	3.80%	1.30%	0.00%	19.40%
2018	74.80%	2.00%	0.00%	0.00%	23.10%
2020	76.40%	2.10%	0.00%	0.00%	21.40%
2022	76.80%	1.40%	0.00%	0.00%	21.80%

Source: US Census Bureau/American Community Survey. "DP04: Selected Housing Characteristics" Multiple years: 2010-2022 American Community Surveys.

Table 5.3-6 Household Size

Year	Storey County Owner Occ. Households Size	Storey County Renter Occ. Households Size	Nevada Owner Occ. Households Size	Nevada Renter Occ. Households Size
2010	2.11	3.01	2.69	2.6
2012	2.12	2.85	2.69	2.68
2014	2.13	2.11	2.71	2.71
2016	2.25	2.09	2.72	2.72
2018	2.42	2.63	2.72	2.64
2020	2.34	3.62	2.7	2.58
2022	2.42	4.68	2.72	2.55

Source: US Census Bureau/American Community Survey. "DP04: Selected Housing Characteristics" Multiple years: 2010-2022 American Community Surveys.

Table 5.3-7: Housing Occupancy Status

Year	Storey County Occupied Households	Storey County Vacant Households	Nevada Occupied Households	Nevada Vacant Households
2010	90.40%	9.60%	85.90%	14.10%
2012	91.60%	8.40%	84.80%	15.20%
2014	91.30%	8.70%	84.90%	15.10%
2016	87.60%	12.40%	85.90%	14.10%
2018	83.10%	16.90%	87.10%	12.90%
2020	86.50%	13.50%	89.10%	10.90%
2022	86.20%	13.80%	89.90%	10.10%

Source: US Census Bureau/American Community Survey. "DP04: Selected Housing Characteristics" Multiple years: 2010-2022 American Community Surveys.

5.3.2.3 Interconnectivity

Geographic barriers and the interrelationship between each community in the county and its employment centers is an important factor in determining population forecasts. Distance, time, and geographic barriers between most communities in the county currently separate job opportunities from most of its residents.

Most of the county's employment growth in the past decade took place at McCarran. Lockwood is the primary residential center for this area with the remaining River District providing a much lesser degree of housing opportunities for workers. While some housing opportunities currently appear available, including availability of affordable housing, job growth at McCarran may ultimately exceed housing availability in the River District.

Challenging and remote geography and long drive distances separate many of the county's other population centers from the jobs provided at McCarran. Mixed-use residential and commercial development that may occur at Painted Rock, and also the greater Mark Twain-Flowery Range area with completion of the USA Parkway connection between Interstate 80 and US Highway 50 in 2017, are considered potential factors that may contribute to increased working-age families in the county and a resultant deviation from countywide population forecasts.

Total net commuters in Storey County have notably increased by 15,000 from 2010 to 2021. However, the large increase comes from only the inbound commuters, while the total outbound commuters have slightly decreased over the 11 years. The total inbound commuters have increased from 2,593 in 2010 to 17,527 in 2021 (Table 5.3-8).

Table 5.3-8: Outbound vs Inbound Commuters

Year	Commuters	Outbound	Inbound
2010	2,593	198	2,395
2011	2,787	196	2,591
2012	3,085	198	2,886
2013	3,486	188	3,298
2014	4,374	188	4,187
2015	5,141	162	4,978
2016	6,129	172	5,957
2017	10,091	194	9,897
2018	16,025	184	15,841
2019	16,788	188	16,600
2020	16,678	181	16,497
2021	17,527	184	17,343

Source: Nevada Economic Assessment Project Socioeconomic Baseline Report Storey County 2022

5.3.2.4 Water

The availability of water is a critical determinate in the rate at which population may expand and to the extent to which the growth rate in the county may deviate from the Nevada State Demographer's projections. As discussed in Chapter 10 – Water and Natural Resources the patterns of success and failure of groundwater development and limitations on other water sources in Storey County imply that new development, especially residential development, should be approached very carefully. In 2008, Storey County voters passed Advisory Questions 1 and 2 advising the county to require all future applicants for master plan amendments, zone map amendments, planned unit developments, and other applications involving residential development to identify and obtain permits for water resources prior to application. These regulatory elements have since been incorporated into the county's land division, planned unit development, zoning, and other ordinances.

The availability of water is just as important for the county's existing residential communities, particularly the Highlands and Mark Twain-Flowery Range, as it is for potential new developments. Because of inadequate groundwater resources for these communities, full build-out of the Highlands, and significant residential and commercial development of the greater Mark Twain-Flowery Range area are not likely possible without importing water from other basins and developing municipal water systems to serve new residents.

CHAPTER 6

Housing

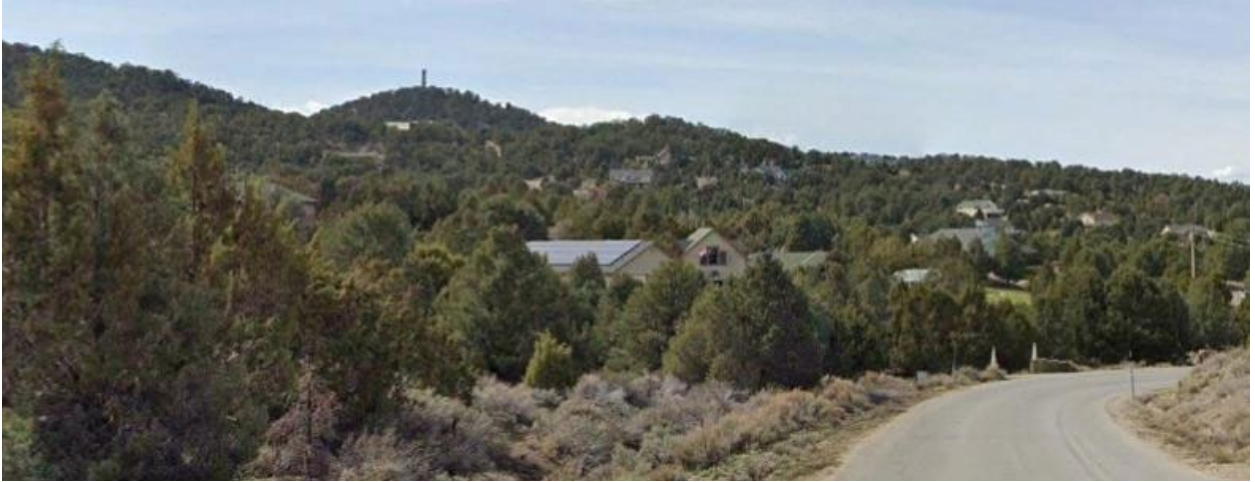


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6.1 Introduction

This chapter provides a summary of existing housing types and conditions, housing affordability, housing trends and estimated housing needs, as well as sets goals, objectives, and policies to guide future housing decisions in Storey County. Storey County’s housing market is characterized by a mix of single-family homes, mobile homes, and multi-family units. The current housing stock is predominantly older. There is a notable scarcity of new housing developments, and a need to keep pace with the increasing demand driven by both the expanding workforce and the influx of new residents attracted by economic opportunities in the area. This chapter provides direction to aid County officials and staff, developers, private groups, public service agencies, and residents in the decision-making process relative to housing needs and suitable locations within the county.

6.1.1 Housing Scope

A variety of housing types are provided in Storey County including attached and detached single-family residential dwellings, multi-family housing, and manufactured and mobile homes. A draft of the Storey County Housing Needs Assessment was referenced in the 2024 development of this updated chapter; at the time of this master plan amendment, the document is not yet finalized but will be available in the near future for additional detail on housing information for the county. Information in this chapter is also from the U.S. Census Decennial Census and American Community Survey, which occur every 10 and two years, respectively.

6.2 Existing Housing Conditions

6.2.1 Housing Inventory

Per the US Census Bureau American Community Survey, there were 1,934 residential dwelling units in Storey County in 2022. Single-family detached homes made up 77 percent of the housing market while mobile- and manufactured homes made up approximately 17.8 percent of all dwelling units. Approximately 1.1 percent were single-family attached dwellings and approximately 3.9 percent were multi-family dwelling units. There are currently no large-scale apartment complexes in the county. Table 6.2-1 provides data for number and type of dwelling units for 2022.

Gold Hill, the Highlands, and Virginia City are mainly composed of wood-framed homes while Mark Twain and Lockwood are primarily comprised of mobile- and manufactured homes. Approximately 85 percent of all mobile homes in the county have been converted to “real” property. A mobile- or manufactured home is eligible to become “real” property if it becomes permanently affixed to land which is owned or leased by the owner of the mobile- or manufactured home.

Table 6.2-1 Storey County Dwelling Units, 2022

Area	Single-Family	Multi-Family	Manufactured	Total Units
Total Units	1,512	76	344	1,934
Percent	78.18%	3.93%	17.79%	

Source: Storey County Assessor

6.2.2 Housing Tenure

In 2022, U.S. Census Bureau records indicate that 87.5 percent of Storey County’s 1,934 dwelling units were occupied. Of the occupied dwelling units that year, 97 percent were owner-occupied and 3 percent were occupied by renters. As discussed in Chapter 5 – Population, an influx of second-home ownership occurred between 2004 and 2007, particularly in the Highlands and Comstock area. In 2024 many of those homes remain as second homes.

The rate of vacant and abandoned homes increased approximately 27.4 percent between 2012 and 2022. Dwelling units in Storey County decreased in number from 2012 to 2022 (U.S. Census Bureau). Average household sizes increased for ownership units but decreased for rental units. Housing occupancy data is presented in Table 6.2-2.

Table 6.2-2: Housing Occupancy

Type of Dwelling and Household Size	2012		2022		Change in Percentage 2012-2022
	Dwellings	Percent	Dwellings	Percent	
Total Dwellings	2,007 ¹	-	1,934	-	
Occupied	1,839	91.6%	1,692	87.5%	-4.1%
Vacant	168	8.4%	242	12.5%	+4.1%
Owner Occupied	1,742	94.7%	1,641	97%	+2.3%
Renter Occupied	97	5.3%	51	3%	-2.3%
Avg. household size of owner-occupied units ²	2.12	-	2.42	-	+3%
Avg. household size of renter-occupied units ²	2.85	-	2.12	-	-.73%

Sources: U.S. Census Bureau 2012 and 2022

¹There is a discrepancy between County Assessor records and the U.S. Census data for dwelling units, and U.S. Census Bureau data was used.

²Average household sizes based on U.S. Census Bureau American Community Survey data for 2012-2022

6.2.3 Regional Comparison

When compared to surrounding counties in the area, Storey County has less diverse housing types, particularly when it comes to multi-family housing opportunities. As indicated by data in Table 6.2-3, Storey County has the highest percentage of single-family housing, and the lowest percentage of multi-family housing when compared to the surrounding area.

Table 6.2-3: Housing Supply Type – Comparison for Storey County and Region, 2022Type of Structure

Type of Structure	Carson City	Lyon County	Storey County	Washoe County
Single-Family Detached	58.5%	73%	77.1%	60.4%
Single-Family Attached	6%	1.4%	1.1%	4.5%
Mobile/Manufactured.	9%	18.9%	17.8%	5.9%
Multi-Family	26.4%	6.7%	3.9	29.2%

Source: U.S. Census Bureau American Community Survey, 2022

The rate of owner- and renter-occupied housing in Storey County differs from other counties in northwestern Nevada. Table 6.2-4 lists the percent of owner-occupied housing in Storey County at 97 percent, which is significantly higher than Lyon, Douglas and Washoe counties and Carson City. Conversely, the percentage of units used as rentals is significantly lower in Storey County when compared to other areas in northwestern Nevada. Notably, the number of occupied units decreased during the period 2012 to 2022 in Storey County concurrent with population decreases but increased in other areas. Although population decreased from 2009 through the middle of 2014 following the 2009 recession, it began to rebound in 2014 and has been increasing since then.

Table 6.2-4: Occupied Housing and Usage – Story County and Region, 2012 - 2022

Year	Storey County		Lyon County		Carson City		Douglas County		Washoe County	
	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	Total Occupied Units	
2012	1,839	18,548	21,122	19,226	161,892					
2022	1,692	23,290	23,355	21,001	223,813					
	Owner	Renter	Owner	Renter	Owner	Renter	Owner	Renter	Owner	Renter
2012	1,742	97	13,051	5,497	12,776	8,346	14,012	5,214	94,891	67,001
2022	1,641	51	17,790	5,500	14,450	8,905	16,113	4,888	126,056	75,084
Percent of Total Dwellings (Owner/Renter)										
2012	94.7%	5.3%	70.4%	29.6%	60.5%	39.5%	72.9%	27.1%	58.6%	41.4%
2022	97%	3%	76.4%	23.6%	61.9%	38.1%	76.7%	23.3%	62.7%	37.3%

Source: U.S. Census Bureau American Community Survey for 2012-2022

Note: "Owner" and "Renter" means owner-occupied and renter-occupied, respectively.

6.2.4 Housing Affordability and Market Conditions

Housing affordability measures consider household income relative to the cost to rent or pay a mortgage. Housing affordability can be determined by a variety of measures for both renter and owner households. Cost burden for low-income households is defined as paying no more than 30 percent of gross monthly income for housing costs, including utilities. A household is defined as having a severe cost burden if they must pay more than 50 percent of their gross monthly income for housing. Table 6.2-5 provided the median priced houses and percent change from 2012 to 2022. Storey County homes are priced in line with the surrounding area and below the state median. Table 6.2-6 provides data for the percentage of population unable to qualify for median-priced homes in the area.

Table 6.2-5: Median Value of Owner-Occupied Units by Rural County, 2012 and 2022

County	2012	2022	% Change 2012-2022
Carson City	221,900	390,800	+76.1
Churchill	160,100	255,200	+59.4
Douglas	303,800	529,600	+74.3
Elko	183,600	274,200	+49.3
Esmeralda	64,200	95,500	+48.8
Eureka	115,400	177,400	+53.7
Humboldt	150,500	242,200	+60.9
Lander	111,200	198,000	+78.1
Lincoln	153,900	171,800	+11.6
Lyon	144,000	314,200	+118.2
Mineral	92,400	153,400	+66
Nye	124,400	235,500	+89.3
Pershing	136,600	164,400	+20.4
Storey	195,000	297,800	+52.7
White Pine	111,800	197,600	+76.7
Nevada State	190,900	441,100	+131.1

Source: U.S. Census Bureau American Community Survey, 2012-2022

Table 6.2-6: Percentage of Population Unable to Qualify for Median-Priced Home Purchase

Area	Median Priced House			% Households paying more than 30% income on housing		
	2012	2022	% Change	2012	2022	%
Storey	195,000	297,800	+52.7	33.6	27.3	-6.3
Lyon	144,000	314,200	+118.2	38.1	29.2	-8.9
Carson City	221,900	390,800	+76.1	34.8	30.3	-4.5
Douglas	303,800	529,600	+74.3	39	28.8	-10.2
Washoe	226,800	460,000	+102.8	43.1	32.6	-10.5
Nevada	190,900	373,800	+95.8	39.2	36.1	-3.1

Source: U.S. Census Bureau American Community Survey for 2012-2022

In 2012, about 39.2 percent of Nevada households were struggling with housing costs. That percentage decreased to 36.1 percent in 2022. In 2022, a lower percentage of Storey County households live with high housing costs than the state average. Of all of the surrounding counties, Storey County has the lowest percentage of families struggling with high housing costs.

Affordable housing is often a concern to industries considering expanding or developing new facilities in the area. Gaming, retail trade, services, and certain sectors of the manufacturing and distribution trade traditionally pay low wages in Nevada. As such, the availability of affordable housing may influence future business location or expansion decisions. Storey County provides opportunities for more affordable housing for industries considering locating there, particularly as the Tahoe-Reno Industrial Center continues to expand.

Affordable housing is also a concern to local residents, especially young families and senior citizens. Storey County collaborates with state and federal agencies to provide affordable housing assistance for low- and moderate-income households including the Nevada Rural Housing Authority; the U. S Department of Agriculture Rural Development Agency; the Department of Housing and Urban Development; and the Nevada Home Consortium. Storey County should continue to collaborate with these agencies to help provide affordable housing assistance to those in need.

The cost of land is only one of many factors in housing costs, which also include the cost of utilities, interest rates, construction and materials costs, and infrastructure costs. To mitigate the variability in the cost of housing and to help promote housing affordability, for county residents, Storey County should encourage in-fill development within existing communities. An exception to this practice may be considered for development at Painted Rock and the Flowery Range Planning Area that directly supports housing associated with economic development at McCarran (see Chapter 3 – Land Use) and the northern Nevada region.

Housing policies encouraging in-fill and alignment with existing area infrastructure should result in the following benefits:

- Enhanced cost-efficiency when providing utilities, public safety services, road maintenance, and other essential services.
- Easier, more efficient, and lower cost access to public utilities
- Improved access to schools, social services, and public transit
- Improved access to businesses, employment, retail services
- Protection of natural resources, rural areas and industrial zones
- Preservation and enhancement of the unique character of each community.

6.2.5 Rental Market

Market information shows that a low percentage of residential units are used as rentals (Table 6.2-7) in Storey County. Residents of Storey County have the highest median income when compared to surrounding counties and the state. Storey County also has the lowest median rental costs, and by far the lowest percent of income used for rental housing costs. By this measure, Storey County has the most affordable rental housing in northwestern Nevada.

As outlined in Table 6.2-7, the low cost of rental housing and a high vacancy rate go together to show a soft rental market in Storey County. The data shows relatively low demand for rentals in Storey County.

Table 6.2-7: Rental Housing Needs in Storey County, 2022

County	Median Household Income	Median Monthly Owner Housing Cost	Median Monthly Renter Housing Cost	% of monthly owner income to monthly housing cost	% of Renter monthly income to monthly housing cost	Rental Vacancy Rate	Percent below Poverty Level
Storey	86,932	1,204	913	16.6%	12.6%	17.7	9.1
Carson City	67,465	1,748	1,127	31.1%	20%	3.2	11.2
Douglas	84,262	1,429	1,360	20.4%	19.4%	6.4	7.5
Lyon	88,275	1,234	1,196	16.8%	16.3%	4.2	10.4
Washoe	84,183	1,965	1,401	28%	20%	4.9	9.7
Nevada	76,364	1,386	1,622	21.8%	25.5%	6.8	12

Source: U.S. Census Bureau American Community Survey for 2022

6.2.6 Mobile Homes and Mobile Home Parks

Nevada Revised Statute 278 requires that County comprehensive plans and land use regulations for all residential-zoned land allow for siting of manufactured homes. Manufactured homes on individual lots zoned for single-family residential use must be in addition to manufactured homes on lots within designated mobile home parks or manufactured home subdivisions. The code includes certain optional standards which governing bodies may adopt for manufactured homes, such as minimum square footage, placement on a permanent foundation, and structural and architectural requirements. However, none of the standards may discourage needed housing. Storey County's land use ordinance currently provides for mobile-, manufactured-, and site-built homes in all districts designated for residential development without discrimination between types of housing construction.

Increasingly, mobile homes and mobile home parks are providing opportunities for affordable housing in northern Nevada. Overall, mobile home units in Storey County account for approximately 17.7 percent of the housing units in 2022. The majority of mobile homes in Storey County occur on estate properties typically between 1.25 acres and 5 acres. Mark Twain and Lockwood account for a majority of Storey County's mobile home occupancies.

In 2022, there were 344 mobile- or manufactured homeowners in Storey County, the majority of which were age 55 or older.

6.2.7 Special Needs Housing

6.2.7.1 Senior and Disabled Care Housing

There are currently no specialized senior care housing developments in the county and, because of the rural nature of the county, it is not expected that any large-scale senior developments will soon be proposed. Members of the Lockwood and Virginia City communities have expressed a desire to promote senior care housing in the county if opportunity rises. The addition of such care facilities may necessitate expansions in certain county healthcare response systems.

This master plan provides for and encourages multi-generational housing in each of its residential communities. Since adoption of the 2016 master plan, the county has amended its development codes to better facilitate accessory housing, such as accessory dwelling units for members of their immediate lineage provides for independent senior-citizen living with minimal to no strain on public services. Zoning and other actions facilitating multi-generational housing should be structured to maintain the surrounding residential character of neighborhoods.

Storey County currently operates senior citizens centers in Virginia City and Lockwood, and additional senior services are provided in the Mark Twain Community Center. These centers are a public asset and provide essential services and resources that help seniors maintain their independence, thus reducing the need for costly senior housing and other assistance. The County should continue to support its existing senior citizen centers and develop assistance programs where needed. The County should also continue to collaborate with non-profit organizations, such as the Community Chest, to ensure that needs of senior citizens in the county are met.

6.2.7.2 Temporary Shelters for Victims of Domestic Violence

The Storey County District Attorney's Office operates the Victim Services Unit which provides immediate and temporary shelter (safe-houses) for children and adult victims of domestic violence and threats to life safety. Motel and hotel units in the county are typically used for this purpose. Victims needing medium-term shelters (lasting longer than two days) and transitional housing are transferred to Carson City where appropriate accommodations can be provided.

6.2.8 Homelessness and Temporary Shelters

Storey County maintains an interlocal agreement with the Community Chest, Inc., and coordinates with the Rural Nevada Consortium of Care, which provides social services to homeless, in danger of becoming homeless, and low-income persons and families. Through this coordinated effort between the County and the Community Chest, Inc., motels, hotels, and other lodging accommodations in the County are used as to provide necessary shelter on a short-term weekly, or monthly basis.

The Rural Nevada Consortium of Care and the Community Chest offer assistance with short-term housing needs.

Short-term homeless services exist in the county. While long-term homelessness in the county is very low, there are services for those who wish to use them such as Nevada 211 and the Community Chest.

6.3 Housing Capacity and Growth

6.3.1 Land Inventory

The ability of Storey County to accommodate future population growth is dependent upon available land suited for residential development. Table 6.3-1 lists the number of empty buildable residential lots available throughout the county.

Table 6.3-1: Vacant Parcel Land Use

	Comstock	Highlands	Mark Twain	American Flat	Total
Single-Family Residential	293	607	74	-	974
Multi-Family Residential	21	-	-	-	21
Commercial (Acres)	132	-	-	-	132
Industrial (Acres)	19	-	4,327	252	4,598
Forestry (ERUs)	11	-	23	31	65
Special Planning Zone (parcels)	74	-	-	-	74

Source: 2023 Water Resource Plan (Appendix B)

The expected population of Storey County in 2042 is 8,715 (See Chapter 5 – Population of this master plan). Even if the population during this time grows two times more than expected, there are still enough vacant lots to meet demand (see Table 6.3-3). If the persons-per-household increases from the current 2.12 to the previous highs of 2.56, the county may still accommodate growth over six times greater than expected based on existing available parcels.

Per the 2023 Water Resource Plan (Appendix B), data shows 974 vacant single-family residential lots and 21 vacant multi-family residential lots county-wide. Please refer to the Housing Needs Assessment (soon to be finalized at the time of this master plan update) for a more detailed analysis of the vacant lot status in the county and the anticipated available lands inventory.

6.3.2 Housing Demand

The Housing Needs Assessment (soon to be finalized at the time of this master plan update) will offer a thorough and forward-looking analysis of Storey County's housing requirements, projecting future needs based on anticipated population trends and growth potential. This comprehensive review will

identify the specific types and quantities of housing necessary to accommodate the county’s demographic landscape. By evaluating factors such as population estimates, economic conditions, and development opportunities, the assessment aims to guide strategic planning and ensure that housing supply aligns with the needs of residents and supports sustainable community development.

Projections indicate a rising demand for housing in Storey County over the next decade, driven by anticipated job growth in key sectors such as manufacturing, technology, and tourism. This demand necessitates a strategic approach to housing development to accommodate diverse needs. The County must focus on increasing the supply of affordable housing options, including workforce housing, to support the influx of employees and prevent displacement of current residents. This includes expanding affordable homeownership opportunities. Additionally, there is a need for housing that caters to the diverse demographic profiles, including senior citizens and low-income families. Innovative approaches such as mixed-use developments and inclusionary zoning could play a significant role in achieving these goals.

The Nevada State Demographer (2023) projects that the Storey County population in 2042 will be 8,715. County officials and the demographer are modifying the demographer’s REMI model data in the most recent projections to better reflect the population and economic potential as a result of the development of the Tesla “Gigafactory” and further expansion of the Tahoe-Reno Industrial Center. Table 6.3-4 addresses housing projections based on population forecasts.

6.3.3 Growth Prospects

As the northern Nevada region continues to grow in population through economic development, Storey County will continue to play a role offering employment and residential opportunities for area workers.

Table 6.3-4: Housing Projections Based on Population Forecasts, 2020 - 2038

Population forecast base	2023	2026	2029	2032	2035	2038	2042	Percent Change
Demog. Pop.	4,592	5,131	5,716	6,340	7,231	7,706	8,715	-
Dwellings Needed	1,836	2,129	2,371	2,630	3,000	3,197	3,616	96.9%
Historic Rate	4,182	4,424	4,682	4,954	5,241	5,546	5,868	-
Dwellings Needed	1,735	1,835	1,942	2,055	2,174	2,301	2,434	11.9%

Source: “Demographer” based on Nevada State Demographer’s Office Population Projections for Nevada’s Counties 2023-2042;
 Note: “Historic Rate” based on annual 1.9 percent growth rate reported by the U.S. Census Bureau.
 Note: The number of persons per household 2022=2.41

6.3.4 Painted Rock and Flowery Range

6.3.4.1 Painted Rock

Considering the above information and results of analyses, Storey County is prepared for the expected population growth.

While Storey County is already well positioned for future population growth estimates, there still exists potential development to accommodate and attract an influx of residents. In 2006, the board with recommendation by the planning commission approved a planned unit development of approximately 3,500 residential units in Painted Rock. The development is proposed to be a mixed-use community complete with K-12 schools, public services facilities, and an assortment of uses including commercial and various residential uses. While development approvals for the Painted Rock planned unit development have expired, the Painted Rock Area has been assigned as a master plan “transition area” so that a master plan amendment is not needed for a zone change to planned unit development. Storey County has also communicated with the current landowners of the former planned unit development site, and the county has testified to the Nevada State Legislature its acceptance of Painted Rock becoming a large-scale mixed-use housing development serving the northern Nevada region.

6.3.4.2 Flowery Range

This master plan further supports large-scale residential development on portions of the east slope of the Flowery Range east of Mark Twain and border of the Storey and Lyon counties. Situated roughly a 40-minute drive from the Tahoe-Reno Industrial Center and within one or two miles from US Highway 50 and existing utility infrastructure, this approximately 3,000-acre area may be ideally suited for a mixed-use residential planned unit development serving the housing needs of the region.

6.4 Goals, Policies, and Objectives

Goal 1: Direct and manage orderly, efficient, and sustainable housing development

Policy	
Policy 1.1	Create and maintain complete communities.
Objectives	
Objective 1.1-1	Facilitate enterprise areas in each residential community, except the Highlands, as appropriate.
Objective 1.1-2	Encourage planned unit developments to include commercial, residential-commercial, multi-family residential, and other uses concentrated into one or more established town enterprise centers, or to be strategically integrated with existing centers.
Objective 1.1-3	Prevent over-concentration of multi-family use into any given area in the county, and instead integrate multi-family use as mixed-use into existing communities and new planned unit developments.
Objective 1.1-4	Provide accessible quality K-12 schools and related facilities to students in all parts of the county.
Objective 1.1-5	Maintain current policy of encouraging infill residential development and residential development in other areas described in this master plan as appropriate.

Policy	
Policy 1.2	Design communities which attract a diverse population and workforce.
Objectives	
Objective 1.2-1	Collaborate with the school district and its board of trustees during review of proposed subdivisions, housing projects, and planned unit developments to consider the level and type of education and supporting facilities that may be required.
Objective 1.2-2	Designate planned unit developments in specific areas where mixed-use and residential-commercial uses may be appropriate in relation to the new development and the existing surrounding community.
Objective 1.2-3	Create a family-friendly environment in which schools are easily integrated into the community and accessible to residents.
Objective 1.2-4	Form an advisory group between the County and the school district, consisting of a broad representation of well-respected people in their fields of expertise and who are

	recognized for their leadership and commitment to improving schools, to ensure the location, placement, and design of school facilities meets the goals of this master plan, and the school district’s needs which extend beyond the jurisdiction of this master plan.
Objective 1.2-5	Promote mixed-use developments that support live-work environments and community diversity.

Goal 2: Meet the market needs for housing in the county

Policy	
Policy 2.1	Develop a diverse mix of housing options.
Objectives	
Objective 2.1-1	Support the rental market when feasible, including multi-family rental housing as an integrated part of mixed-use communities.
Objective 2.1-2	Encourage multi-generational housing (e.g., accessory dwellings for the housing of parents and family members) in existing and future residential communities.
Objective 2.1-3	Encourage enhancements in planned unit developments that attract younger and diverse demographics.
Objective 2.1-4	Incorporate the recommendations provided in the Housing Needs Assessment. (soon to be finalized at the time of this master plan update) to ensure there is adequate supply of housing for projected population growth.
Objective 2.1-5	Encourage development of affordable housing opportunities by partnering with various agencies such as the Nevada Rural Housing Authority, the U.S. Department of Agriculture Rural Development Agency, the Department of Housing and Urban Development, and the Nevada Home Consortium.

Policy	
Policy 2.2	Develop comprehensive design standards for residential planned unit developments and facilitate phasing of planned unit developments that ensures project completion and sustainability during phasing.
Objectives	
Objective 2.2-1	Meet changing market conditions while ensuring improvements meet demands for infrastructure and service.
Objective 2.2-2	Phase planned development projects so they function effectively and independently at each phase.
Objective 2.2-3	Establish design standards for residential planned unit developments with high

quality and compatible design, and address elements including minimum lot size, building scale, setbacks (including buffering), lighting, loading areas, landscaping, screening and fencing, accessibility to people with disabilities, signage, internal circulation, building materials, and impacts on the surrounding environment in order to create a livable community attractive to different populations.

Objective 2.2-4 Require developers of planned unit developments to dedicate to the county and/or school district land necessary for the construction of public schools and public service facilities. The location and quality of land must meet the standards of this master plan and not cause undue cost or strain on county resources.

Objective 2.2-5 Require developers of planned unit developments to build and dedicate to the county school district, as agreed between the developer and the school district, K-12 school facilities adequate to serve area populations, as well as other needs determined appropriate by the school district for the subject area.

Goal 3: Increase resources to maintain owner-occupied units in Storey County with preferences for historic structures built prior to 1942

Objectives

Objective 3.1-1 Continue to support existing local and home rehabilitation and weatherization programs to reduce ownership expenses and improve health and safety concerns

Objective 3.1-2 Coordinate with federal and state agencies such as the U.S. Department of Housing and Urban Development, U.S. Department of Agriculture Rural Development, and Nevada Rural Housing Authority to help fund rehabilitation of abandoned and substandard dwellings

Objective 3.1-3 Make existing historic structures livable by streamlining regulations, improving cooperation with local contractors and owner-builders, and seeking assistance from agencies such as the Nevada Rural Housing Authority for historic building rehabilitation assistance.

CHAPTER 7

Economic Development



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7.1 Introduction

In the ever-evolving business development environment of Storey County, the need for a completely new master plan chapter has become more relevant than ever. This new version reflects a significant shift from previous iterations, driven by rapid changes in economic and business development growth. As businesses and industries continue to expand and diversify at an unprecedented pace, the challenges and opportunities facing Storey County have transformed.

In 2023, Storey County released a comprehensive white paper titled "Storey County Regional Impacts: An Overview of Economic Contributions, Abatements, Responsibilities, and Community Planning." This document, included as an Appendix G, offers an in-depth analysis of the county's business landscape and its economic development initiatives. It examines not only the local impacts but also situates these developments within the broader context of the region and the state. The white paper highlights key economic contributions made by various sectors, outlines the implications of tax abatements, and discusses the responsibilities associated with sustainable growth.

This chapter is significantly different from the 2016 version, as each chapter subsection is now a brief overview. This reflects the comprehensive information contained in the white paper referenced above.

7.2 Employment Trends

7.2.1 Economic Overview

Storey County has experienced notable employment growth in recent years, driven primarily by the expansion of industrial and tech sectors. The development of the Tahoe-Reno Industrial Center (TRI-Center)—one of the largest industrial parks in the world, and county's proximity to the Reno-Sparks metropolitan area and have attracted major companies, such as Tesla, Switch, and Google, significantly reshaping the local job market.

Key employment trends include:

1. **Shift to High-Tech and Manufacturing Jobs:** With the presence of large technology firms and manufacturers, there has been a surge in demand for skilled labor in areas like advanced manufacturing, data centers, logistics, and renewable energy.
2. **Increased Job Opportunities in Logistics and Warehousing:** As a hub for regional and national distribution, Storey County has seen an uptick in employment opportunities in logistics, warehousing, and transportation-related sectors.
3. **Growth in Construction and Infrastructure Development:** The rapid pace of industrial growth has spurred increased activity in construction, both in terms of residential development to accommodate the growing workforce and commercial infrastructure.
4. **Higher Wages and Competitive Employment Market:** With the influx of high-tech industries, wages in the region have become more competitive, particularly in sectors requiring specialized

skills. However, the demand for labor has created challenges for local recruitment, particularly in skilled trades and professional positions.

These trends have positioned Storey County as a key employment hub in Northern Nevada, reflecting broader changes in the regional economy while creating opportunities for continued growth and diversification.

7.2.2 Employment Rates

Storey County's employment rates have been influenced by the region's rapid industrial growth. This economic expansion has played a significant role in stabilizing employment and creating job opportunities, leading to relatively low unemployment rates compared to state and national averages.

Storey County has maintained a low unemployment rate over recent years, largely due to the growth of the industrial sector. The influx of companies has provided a steady stream of job opportunities, particularly in manufacturing, technology, and logistics.

While the overall employment rates have remained stable, like many regions, Storey County has experienced occasional fluctuations due to broader economic factors, such as changes in demand for goods and services and shifts in national or global markets. However, these impacts tend to be moderated by the long-term investments and developments in the county.

Employment rates have benefited from an expanding labor market, with the creation of thousands of new jobs in industries such as advanced manufacturing, data centers, and distribution. As these sectors grow, the county continues to attract workers from surrounding areas, including Reno and Sparks, contributing to regional employment growth.

Despite the strong employment landscape, the county faces challenges in filling highly skilled positions. As demand for specialized roles grows, gaps in the local talent pool have led to recruitment efforts beyond the immediate region.

Storey County's employment rates reflect the positive impact of its industrial and economic development. While unemployment remains low, the county continues to focus on addressing workforce development needs to ensure sustained growth in both employment and economic resilience.

7.3 Income Trends

Income trends in Reno, Sparks, Storey County, Carson City, and Lyon County have been significantly shaped by the region's ongoing economic transformation, with Northern Nevada emerging as a hub for technology, manufacturing, and logistics. Reno and Sparks, in particular, have seen robust income growth driven by the rise of tech companies, advanced manufacturing, and the expansion of the Tahoe-Reno Industrial Center in Storey County. The influx of large employers, such as Tesla and Switch, has resulted in higher-paying jobs, which has pushed up household incomes across the region. These economic changes have fostered higher median incomes in Washoe County and Storey County, surpassing state and national averages, while also creating new opportunities for wage growth in surrounding areas.

Carson City and Lyon County have also experienced moderate income growth, benefiting from their proximity to the booming Reno-Sparks area. Carson City, with its mix of government jobs and small business growth, has seen stable wage increases, though not at the same pace as Reno and Storey County. Lyon County, historically more rural, is experiencing a gradual rise in income levels as new industries and developments spread outward from Reno. While wage growth in these areas is still catching up to Northern Nevada's industrial hubs, the overall trend is positive, with the region becoming increasingly attractive for both employers and workers seeking competitive incomes and a diversified economy.

7.3.1 Per Capita Income

Per capita income in Storey County has risen significantly in recent years, largely due to the county's transformation into a major industrial hub. As a result, the county's per capita income has consistently been among the highest in Northern Nevada, reflecting the benefits of rapid industrialization and a shift toward a more diversified, high-tech economy. In 2021, Storey County's per capita personal income reached \$40,032, positioning it just below Douglas County in the region.

Across Northern Nevada, per capita income has also seen steady growth, particularly in areas like Washoe County (Reno-Sparks) and Carson City, which have benefited from similar economic diversification. The tech-driven boom, paired with a strong logistics sector, has elevated incomes in urbanized areas, though rural counties within the region have experienced slower growth. While income levels in Northern Nevada still vary by county, the trend is toward higher wages as industries expand and diversify beyond traditional sectors like tourism and mining. Storey County remains a standout in this shift, with its industrial growth serving as a catalyst for broader economic prosperity in the region.

7.3.2 Income of Families

Family incomes in Storey County and Northern Nevada have risen significantly due to the industrial growth. In Storey County, this economic shift has driven median household incomes to around \$81,000, reflecting the influx of higher-paying jobs in tech, manufacturing, and logistics. Similarly, in Reno-Sparks and Carson City, median household incomes have increased due to the growth of higher-wage industries.

7.3.3 Average Annual Wage by Job Type

In Northern Nevada and Storey County, annual wages vary significantly by job type, reflecting the region's diverse economic landscape. In high-demand sectors such as technology and advanced manufacturing, annual wages can exceed \$100,000. For example, software developers and engineers in the tech industry typically earn between \$90,000 and \$120,000 per year.

In contrast, jobs in the service and hospitality sectors, which remain significant in the broader Northern Nevada economy, tend to offer lower annual wages, generally ranging from \$30,000 to \$50,000, depending on the specific role and experience level. Retail and administrative support roles also fall within this range. However, with the ongoing growth of high-paying industries in Storey County, the region is increasingly shifting towards higher wage averages, leading to greater overall income potential for residents as the economy diversifies.

7.4 Industries

Northern Nevada boasts a diverse array of industries that contribute significantly to the region's economic growth and resilience. One of the most prominent sectors is technology, corresponding to the growth in the Tahoe-Reno Industrial Center. This has fostered a burgeoning tech ecosystem focused on advanced manufacturing, data centers, and logistics. Additionally, the region is home to a strong mining industry, particularly in gold and silver extraction, which has historically played a vital role in Nevada's economy. The service and hospitality industries also remain significant, particularly in areas like Reno and Sparks, where tourism, gaming, and retail continue to provide essential employment opportunities.

In addition to technology and mining, Northern Nevada has seen growth in renewable energy, healthcare, and construction sectors. The push for sustainability has led to an increase in solar and wind energy projects, positioning the region as a player in the clean energy movement. The healthcare sector is also expanding, with the establishment of new medical facilities and services to meet the growing population's needs. Furthermore, the construction industry is thriving due to ongoing residential and commercial development, fueled by the influx of new residents and businesses. Overall, the diverse industrial landscape of Northern Nevada not only supports economic stability but also provides a wide range of job opportunities for residents.

7.5 Overall Economic Conditions

Nevada Competitiveness SWOT Summary	
<p>Strengths</p> <ul style="list-style-type: none"> • Low taxes • Business friendly regulatory climate • Historically has been a high-growth economy • Good quality of life (although this is under-recognized) • Extensive entertainment and recreation assets • Proximity to West Coast population centers, markets, transportation routes, and ports • Excellent airport infrastructure (in both Las Vegas and Reno) • Excellent natural and physical resources (for mining, energy, etc.) 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Workforce skill level is low (esp. at higher education levels, although this has been improving) • K-12 educational system is underperforming • Healthcare system is underperforming • Energy costs are expensive (relative to other Western states) • Land transportation connections can be challenging (in some parts of state)
<p>Opportunities</p> <ul style="list-style-type: none"> • Political leadership is closely engaged in revamping and renewing economic development activities • Ease and cost of living is attractive compared to neighboring California • Growing urban/arts districts in Las Vegas and Reno • Large number of tourists/visitors/conventions – an opportunity to “sell” Nevada for future workforce/residents/businesses • Infrastructure for innovation is in place (at UNR, DRI, UNLV), but not at its full potential • Relatively strong Science & Engineering (S&E) workforce and students in Reno • World-class Internet connectivity opportunities (such as the Switch data center in Las Vegas) 	<p>Threats</p> <ul style="list-style-type: none"> • Extreme economic cycles and volatility • Limited state economic development resources dispersed through fragmented regional efforts • Existing image issues can be a barrier in attracting higher skilled workforce • Federal land ownership can hinder land usage/development in much of the state • Water shortages • Shortage of workforce especially technically skilled • Housing shortage, both for purchase and rent. • Lack of sufficient electric infrastructure • Lack of adequate highway infrastructure

7.6 Economic Development Strategies

7.6.1 Business Development Specific Staff

In July 2021, Storey County created a new Business Development Officer position. This position is responsible for recruitment and retention of businesses throughout the entire county. The Business Development Officer is committed to collaborating with and connecting businesses to the resources to grow and thrive. The TRI-Center is a substantial part of the Business Development Officer's focus, to create a robust complex for both the businesses and their employees.

7.6.2 Active Public-Private Engagement

Business development efforts are pursued in Storey County to promote the location and development of business in the county. The business development team also strives to:

- Diversity and expand the local job base;
- Recruit new businesses to the Tahoe-Reno Industrial Center, communities, and other areas in the county;
- Respond to requests for demographic, labor force, and other information;
- Link businesses which are interested in locating to Storey County with tax and other funding incentives potentially available from the State, the federal government, or others;
- Help existing and prospective employers find out about continuing education, professional development, and job training opportunities for their employees;
- Help existing and prospective employers with providing for reliable and efficient transportation means for their employees.

7.6.3 Regional Cooperation and Partnerships

The Storey County business development team cooperates with several economic development entities in the region including, but not limited to, the following:

- Economic Development Authority of Western Nevada;
- Western Nevada Development District;
- Northern Nevada Development Authority;
- Governor's Office of Economic Development

7.6.4 Strategies for Development and Diversification

The following are strategies that the county employs to promote economic growth and diversity:

- Maintain land use, zoning, and conservation policies and regulations that promote commercial,

industrial, and mixed-uses in the county;

- Continue establishing more job training and professional development partnerships with local employers and education institutions;
- Coordinate water and sewer facilities planning with the need to bring these utilities to areas zoned for commercial and industrial uses;
- Continue coordinating with the Nevada Department of Transportation and the Regional Transportation Commission of Washoe on the widening of Interstate 80 and alternative routes to the Tahoe-Reno Industrial Center and more local control over portions of State Route 341 (“C” Street) in downtown Virginia City;
- Coordinate with the Washoe County Regional Planning Agency on the development of regional market analyses and economic asset management, including identifying assets and constraints, labor forces, education resources, commercial and industrial sites and providers, and transportation networks;
- Actively encourage and participate in regional committees and efforts of which goals are to improve the economy in Storey County and the region by fostering the creation of higher paying jobs. A related goal of this effort will be to diversify the economic base so that the county is better able to withstand and accommodate future economic change.

7.6.5 Comprehensive Economic Development Strategy

The Economic Development Strategies identified above are consistent with the following items. This should be considered an Action Plan for Storey County’s Comprehensive Business Development Strategy.

- Maintain tourism and hospitality as a primary economic industry in Gold Hill and Virginia City but diversify toward more industries and services to address local needs;
- Promote downtown redevelopment in Virginia City in order to revitalize tourism and market cultural and historical resources;
- Identify and plan for future growth industries:
 - Attracting uses and commercial endeavors that are synergetic and promote tourism on the Comstock. Uses may include, but are not limited to, movie and film production and related development, uses involving the Virginia and Truckee Railroad, encampments and uses featuring authentic and interactive western heritage, and integration of tourism and education into modern as well as historic mining;
 - Promoting “green-energy” such as solar, wind, geothermal, waste-to-energy at McCarran and other areas of the county where impacts to adjacent uses will be minimized;
 - Attracting unique high-intensity industries including those that conduct research, development, and testing of volatile compounds, weapons, civilian and military apparatus, wastes, fuels, and energy to McCarran and other remotely located industrial areas in the county;
 - Commercial business which is directly associated with serving the needs of local residents.
- Provide for the development of necessary infrastructure to provide a competitive business

environment.

- Ensure accessibility to and expansion of transportation, utility, and information- technology services serving businesses;
- Provide for appropriate level of development and re-development of affordable workforce housing;
- Emphasize on infrastructure holistically and not just focus on individual projects.
- Provide for the development of a sustainable, high quality workforce.

7.7 Goals, Policies, and Objectives

Goal 1: Continue to enhance diversification of economic opportunities within the county.

Policy	
Policy 1.1	Maintain and continue to update, as needed, standards for industrial and commercial development within the Tahoe-Reno Industrial Center and other parts of the county.

Policy	
Policy 1.2	Promote commercial business activity in the county that will benefit not only tourists and visitors, but residents and local businesses as well.

Policy	
Policy 1.3	Promote commercial business activity within the Tahoe-Reno Industrial Center which will serve employees, transportation, contractors, vendors, and visitors to the area.

Policy	
Policy 1.4	Expand programs and improve inter-local communication and collaboration with existing local, state, and federal economic development and diversification agencies.

Policy	
Policy 1.5	Promote commercial and industrial developments within the Tahoe-Reno Industrial Center by facilitating efficient and straightforward permitting processes and enhanced communication between prospective businesses and local government agencies.

Policy	
Policy 1.6	Collaborate with the Economic Development Authority of Western Nevada and the Northern Nevada Development Authority to coordinate development of prime industrial land within McCarran and other appropriate areas within the River District.

Policy	
Policy 1.7	Promote county-wide mobility infrastructure and projects to support job access.

Goal 2: Support the development of the county's significant mineral resources while ensuring that negative impacts to the land and adjacent land uses are minimized.

Policy	
Policy 2.1	Maintain a close collaborative relationship between county agencies and mining operations throughout the permitting process and thereafter to minimize negative impacts.
Objectives	
Objective 2.1-1	Adopt standards or policy statements concerning mineral development on or near the Comstock Historic District which are distinct from development standards in outlying areas.
Objective 2.1-2	Refrain from duplicating permit applications requirements and fees which have been established by state and federal agencies.

Goal 3: Design zoning districts to allow for a mixed land use development.

Policy	
Policy 3.1	Prohibit land use permits adjacent to brothels which are deemed incompatible therewith.
Objectives	
Objective 3.1-1	Encourage commercial development within industrial zones that provides goods and services (e.g., restaurants, entertainment, dry goods, food, etc.) to the maximum limit allowable by zoning code.

Objective 3.1-2	Encourage clustering of commercial land uses in industrial areas in order to reduce automobile travel time, congestion, and cross traffic on major throughways.
Objective 3.1-3	Encourage high density development and commercial uses in CR Zones.

Goal 4: Expand McCarran’s ZIP Code to include other Storey County Communities.

Policy	
Policy 4.1	Maintain a close collaborative relationship between county and federal agencies to fulfill Objective 4.2-1.
Objectives	
Objective 4.2-1	Submit requests to the United States Postal Services to have a ZIP Code assigned exclusively to McCarran, Painted Rock, Hafed, Lockwood, and other River District communities in Storey County.

Goal 5: Maintain and enhance primary job base.

Policy	
Policy 5.1	Continue to coordinate the county’s ongoing planning efforts and Land Use Map with major employers where applicable to ensure compatibility with their facility master plans and expansion efforts.
Objectives	
Objective 5.1-1	Retain and promote the expansion of major employers already established in the county, including Gold Hill and Virginia City, the River District, and the Tahoe-Reno Industrial Center.
Objective 5.1-2	Promote activities that have the potential to upgrade the skill and wage levels of the county’s resident and non-resident labor force and those likely to enter the labor force (e.g., local college graduates). Encourage educational opportunities for the development and/or upgrade of skills required for employment, advancement and entrepreneurship.

Goal 6: Promote expansion of a regional retail service base.

Objectives	
Objective 6.1-1	Encourage the development of retail and premium amenities, consisting of shops, restaurants, entertainment venues, offices, and hotels in existing commercial centers and in proposed mixed- use communities.

Goal 7 Recognize and adapt to the impact of technology on work and workforce patterns.

Objectives	
Objective 7.1-1	Encourage the incorporation of home-based occupation businesses and live/work units that are consistent with the character of surrounding properties, land uses, and land use designations.
Objective 7.1-2	Continue to work with regional service providers to provide low-cost, easily accessible, state-of-the-art telecommunications and other technology services throughout the county.
Objective 7.1-3	Use technology to increase information available to residents and businesses regarding growth patterns, economic conditions, development activity, and other elements of the competitive landscape. Where possible, these elements should be interactive.

Goal 8 Promote tourism activities and amenities that highlight the Virginia City National Historic Landmark and other cultural resources.

Objectives	
Objective 8.1-1	Support tourism activities associated with the major historic resources within the county, such as the V&T Railroad, the various cultural institutions, and the historic buildings and stories of the Comstock, by ensuring that future development supports the functions and visual character of these resources.
Objective 8.1-2	Encourage the development of historical opportunities, interpretive signage, and other amenities that complement and enhance the county's historic resources. Continue to explore opportunities to expand downtown walking tours and interpretive signage exhibits and identify new opportunities to showcase the county's historic resources.
Objective 8.1-3	Support artists, arts organizations, the Storey County School District's arts programs, and related cultural institutions because of their significant contributions to the county's overall healthy business climate; their role in creating a cultural environment that attracts other living wage employers, as well as tourists, to the region; and the substantial benefits they provide to the residents and communities.

Goal 9 Promote and maintain the pro-economic development county government.

Policy	
Policy 9.1	Recognize that business cycles will occur, and the competitive landscape is rapidly evolving. Provide planning flexibility that can be responsive to unforeseen or changing economic conditions and community needs within the context of the master plan.
Objectives	
Objective 9.1-1	Maintain land-use policies and permitting procedures that are understandable, predictable, and can be accomplished within reasonable time periods.
Objective 9.1-2	Leverage, whenever possible, statewide economic development efforts to help attract business investment to the county and promote the benefits of the region.
Objective 9.1-3	To the extent of the county’s control, maintain a balance revenue system that is competitive for business and other investment.
Objective 9.1-4	Recognize the unique nature of Nevada’s tax system and promote economic development alternatives the result in a net positive fiscal impact for the county.

CHAPTER 8

Transportation



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8.1 Chapter Introduction

8.1.1 Chapter Introduction

The goal of the transportation element is to connect Storey County residents with their communities and neighboring jurisdictions to enhance the quality of life. Safety, efficiency, maintenance, mobility, sustainability, and economic development are incorporated to support this goal. Whether by vehicle, bicycle, rail, or walking transportation fundamentally impacts the way people interact with their surroundings.

Current growth in the community and the types of growth (e.g., commercial, residential, industrial) place demands on the transportation systems. These demands must be considered when evaluating the best plan to reduce travel times, encourage economic development, and increase safety. As a rural community, Storey County's topography and population size present unique challenges when developing an interconnected transportation network. Furthermore, connections to neighboring jurisdictions, particularly Reno, are increasingly important to provide residents of Storey County access to goods and services not locally available. These challenges are discussed throughout this chapter and highlight potential improvements to develop a more connected community.

This chapter presents inventories and reviews of the existing and proposed transportation infrastructure serving county residents, and discusses how current needs are met, where they can improve, and how to meet the future needs. While the total population of Storey County is approximately 4,095 people (U.S. Census Bureau estimate for 2022), Storey County residents are spread throughout four general areas, based on the unique transportation needs: Virginia City/Gold Hill, Virginia City Highlands, Mark Twain, and Lockwood. In addition, the McCarran area is comprised of commercial, industrial, and other non-residential uses, and connections between the McCarran area and the aforementioned communities are critical to the economic viability of Storey County. A future planned unit development in the Painted Rock area will also require unique transportation as the region continues to expand. These areas are described below.

Virginia City and Gold Hill's combined population is approximately 1,146 people per the Governor of Nevada's certified estimate for 2022. The major economic sector is tourism. Over one million people travel to and from Virginia City each year and continued growth is expected in the local tourism sector. Connecting Virginia City to the surrounding area is critical to the local economy of Storey County.

The Virginia City Highlands population is approximately 1,430 people and the Mark Twain area population is approximately 780 people (governor's certified estimate for 2020). Both areas are bedroom communities with little commerce outside of small, home-based businesses such as contractors, daycare, and family agriculture. Connecting these communities to the surrounding areas is critical in providing residents access to commerce.

Lockwood is a mixed-use community of approximately 1,333 residents (governor's certified estimate for 2020). There are several light industrial uses in the area mixed with residences, a school, and county public service facilities. The Lockwood Regional Landfill, which services areas of Nevada and other states, is on the south side of the community. Highway access is provided via Interstate 80 to

the north.

McCarran is on the north side of the county between Lockwood and Painted Rock and is home to the Tahoe-Reno Industrial Center, which includes nearly 107,000 acres of light- and heavy manufacturing and distribution, commercial energy generation, data management centers, and other industries. USA Parkway (State Route 439) and Waltham Way serve as the major arterial routes connecting the industrial center to Interstate 80 to the north and US Highway 50 to the south. These links will receive special attention in this chapter due to their impact on Storey County and northwestern Nevada as a whole. A development agreement between Storey County and the Tahoe-Reno Industrial Center reserves the entire industrial center exclusively for commercial and industrial uses and prohibits residential development. The prohibition of residential development encroaching near the industrial is found appropriate by this master plan, due to the intensity of allowed uses in the industrial center.

Painted Rock is approximately 18 miles east of the city of Sparks and five miles west of the city of Fernley along the southern bank of the Truckee River. Painted Rock includes the Truckee River riparian lowlands and the northern foothills of the Virginia Range. The area is dominated by open space land along the riparian areas of the Truckee River. It includes approximately a dozen large estate single-family residential dwellings. A planned unit development is anticipated to bring new residents to the area, making connections with this area more critical in the future. There are no commercial or industrial uses in this area. The development agreement between Storey County and the Tahoe-Reno Industrial Center stipulates that roads, rail, water, and sewer infrastructure are developed up-front by the industrial center, and that Storey County reimburses costs over a set period of time and with no-interest costs. To date, the total cost of those improvements exceeds \$80,000,000. At the time of preparation of this master plan, Storey County has reimbursed approximately \$40,000,000 of the cost of improvements for roads, drainages, and the McCarran Government Complex. For the purpose of this discussion, the size of this investment should be put into perspective. If a county of one million people made an equivalent investment, \$12.5 billion dollars would need to be invested. With this level of investment, Storey County has clearly made economic development a priority. The county needs to continue to align future investments and administrative processes so that maximum return on investment can be realized.

The safety of residents, visitors, and economic partners is the primary concern for the transportation system in Storey County, and zero fatalities related to transportation remains a major goal.

8.1.2 Transportation Systems and Issues

8.1.2.1 Safety

In 2023, 97 total traffic accidents were recorded, 56 of which resulted in injury and/or death, 27 in property damage, and 7 were categorized as hit-and-run. No fatalities are acceptable, and continued effort should be made to achieve the goal of zero fatalities each year. Furthermore, 3,719 traffic stops were made and 1,560 citations were issued. The partnership between Storey County and the Nevada Department of Transportation should be maintained to deliver the maximum reasonable safety benefits to the traveling public. Projects in conjunction with the “Safe Routes to School” program should be explored more earnestly to help develop and maintain infrastructure connecting students with their schools and surrounding areas within the Lockwood and Virginia City communities, as well as explore opportunities for school facility expansions in Lockwood, McCarran, or the Painted Rock areas.

8.1.2.2 Interconnection

Connections in Storey County between the Lockwood, Mustang, McCarran, and other northern communities with Virginia City to the south are becoming increasingly important as commercial, industrial, and residential growth continue. Multiple master plan workshops were held to help identify and discuss the potential benefits, adverse impacts, and unique challenges associated with constructing a north-south arterial route connecting Virginia City to the Mustang and Lagomarsino areas. An east-west route linking the Lagomarsino area to Mustang, McCarran (and the Tahoe-Reno Industrial Center), and Washoe County was also explored during the master plan workshops. The US 50 Operation Study conducted by the Nevada Department of Transportation provides further information on potential connections in the area. The following is a discussion of topics and concerns expressed in the workshops.

Connecting Lockwood/Mustang and Geiger Grade Road via a direct north-south link between Long Valley Road and Mustang Road may be feasible; however, cost-to-benefit analyses needs to be further reviewed. Incorporating a third link between this route and McCarran near the center of the county was also discussed. Highlands and Lockwood residents expressed concerns about traffic and adverse human-caused impacts that may occur after connecting the region in this manner. Lockwood residents reminded the planning commission that decades of effort by area residents and county officials resulted in rerouting Lockwood Regional Landfill truck traffic away from Canyon Way and to Mustang Road, and that connecting Canyon Way to a regional road system (north-south and/or east-west) would recreate unsafe road conditions that once existed back to the Lockwood community. Major roads connecting the south and central parts of the county with the interstate should align with Mustang Road and avoid Canyon Way at Lockwood.

Also considered during the workshops was a north-south connection between McCarran and Virginia City via USA Parkway (State Route 439) to Highway 50 and Six Mile Canyon Road, an alternative connection that bypasses Highway 50 north of the Mark Twain area. Further discussion with Lyon County on aligning inter-county roads in this area should be further discussed. Other north-south connector alternatives were discussed but were determined to be cost-prohibitive or strongly opposed by Highlands and and/or Lockwood residents. Those alternatives included an alignment between Geiger Grade and Lockwood using Lousetown and Long Valley roads and Canyon Way. These routes were strongly opposed by Highlands and Lockwood residents due to concerns that traffic and other activity would be concentrated through the approximate center of both residential communities, threatening the rural integrity, fire and life safety, and other characteristics of the area. A direct northerly connection between McCarran and Six Mile Canyon was also considered; however, local topography makes such an alignment cost-prohibitive.

The potential for an east-west connector route linking the Lagomarsino area to Mustang, McCarran, and Washoe County was also discussed. Concerns were expressed that such a roadway may encourage residential sprawl from Washoe County that may threaten the rural lifestyle of the Highlands area and conflict with industrial uses and entitlements existing in the Lagomarsino planning area. Concerns surrounding potential traffic and other adverse impacts of an east-west connector to the Lockwood community were also discussed. Despite these concerns, a desire remains to develop a secondary access for the Lockwood community, particularly in the event of emergency. Nevada Department of Transportation has begun studying the feasibility of an east-west connection between South Meadows and the Tahoe-Reno Industrial Center. Further discussions and coordination with the Nevada

Department of Transportation should occur before moving forward to identify a solution to help connect the aforementioned communities and provides a secondary access while minimizing sprawl and potential adverse impacts to the Highlands and Lockwood communities.

Planning Commission Chairman Larry Prater requested the following statement be added to this chapter of the 2024 Master Plan. The statement below (from the 2016 Master Plan) reflects his opinion on the importance of considering future connection between the northern and southern communities of Storey County.

POTENTIAL INTRA-COUNTY ROAD NETWORK

Sometime in the future Storey County may decide that it would be beneficial to connect Lockwood and TRIC [Tahoe-Reno Industrial Center] to Virginia City via roads entirely within the county. Factors that may drive such a decision could include increased emergency management requirements, growing traffic congestion in the Reno/Sparks areas and demand by residents and businesses for quicker access to the county seat in Virginia City.

There exists a series of roads, some of which are very primitive, that connect the three areas now and also provide access to potential cultural assets like the petroglyphs and Cottonwood Springs. These roads are as follows:

Leaving Virginia City, proceed north on Highway 341 to Lousetown Road (both of which are paved) then northeast to Long Valley Road (graded dirt). Continue northeasterly to where the road turns northwest toward Cottonwood Springs and proceed northeasterly on the jeep trail through the Chalk Hills to the south edge of the relatively flat plateau area referred to as Nevada Uplands. The distance to this point from Lousetown Road is about 10 miles and there is very little change in elevation.

At this point the road divides – northeast to TRIC and northwest to Lockwood. The TRIC road is a jeep trail which skirts the south side of Cinder Mountain, continues down Martin Canyon past the Gooseberry Mine to USA Parkway south of the Bush Industries warehouse. The distance from Nevada Uplands to USA Parkway is about 9 miles with a 1,500-foot drop in elevation.

The road to Lockwood is a jeep trail that proceeds 4 miles northwesterly and skirts the petroglyphs (¼ mile to the west). At the northwest corner of the Uplands the jeep trail intersects an improved dirt road with numerous switchbacks that continues northwesterly to Canyon Way, a paved road into Lockwood. Trucks and other heavy vehicles would be required to divert northerly around the Waste Management landfill to the Mustang exit on I-80. The distance from the Uplands to Lockwood is about 7 miles with an elevation drop of about 1,700 feet. [Prater, 2016]

While certain regional interconnection may be necessary in the future, the County should work closely with area residents to determine alternatives that are consistent with the goal of this master plan and prevent unintended negative consequences. The county should also consider future population and other influential factors of the planned unit development in Painted Rock, and potential developments in other parts of the county, before making substantial capital investment in directly connecting Virginia City with the north end of the county. Additional concerns regarding emergency access have been continually expressed during master plan workshops. The Lockwood and Highlands areas currently have one available emergency evacuation route. As the region continues to grow, a second

evacuation route becomes an increasingly important priority, particularly in the event of a disaster which may impact residents' abilities to safely evacuate along a particular route. While the Lockwood community expressed support for a secondary access route, the Highlands community was not interested. A second evacuation route servicing the Lockwood area should be studied in more detail going forward. Should the Highlands neighborhood reconsider their position, a secondary access should be evaluated.

8.1.2.3 Transportation Supporting Resources

With only three vehicle fueling stations in the county, tax revenue earmarked to address transportation needs is insufficient to meet transportation infrastructure needs in the county. Each year, the Storey County Public Works Department requires additional resources from the County to cover the maintenance needs of the county roads. Development trends along Interstate 80 and the Tahoe-Reno Industrial Center should help as new sources of fuel revenue develop in the future. Even with these future sources, it is not expected this additional revenue will cover maintenance costs.

Gas tax indexing was made available to the counties in the 2015 Nevada legislative session. Historically the gas tax rate was fixed at cents per gallon. The indexing allows the county tax on gasoline to adjust with inflation. This allows the assessed tax to adjust with the price of gasoline and is fairer to all consumers over time because the users of the transportation system pay for the roads. The County should consider implementing to help address the funding deficit for roads, deliver a better product to the public, and show statewide support for transportation improvement and maintenance.

8.1.2.4 Roads

General Description

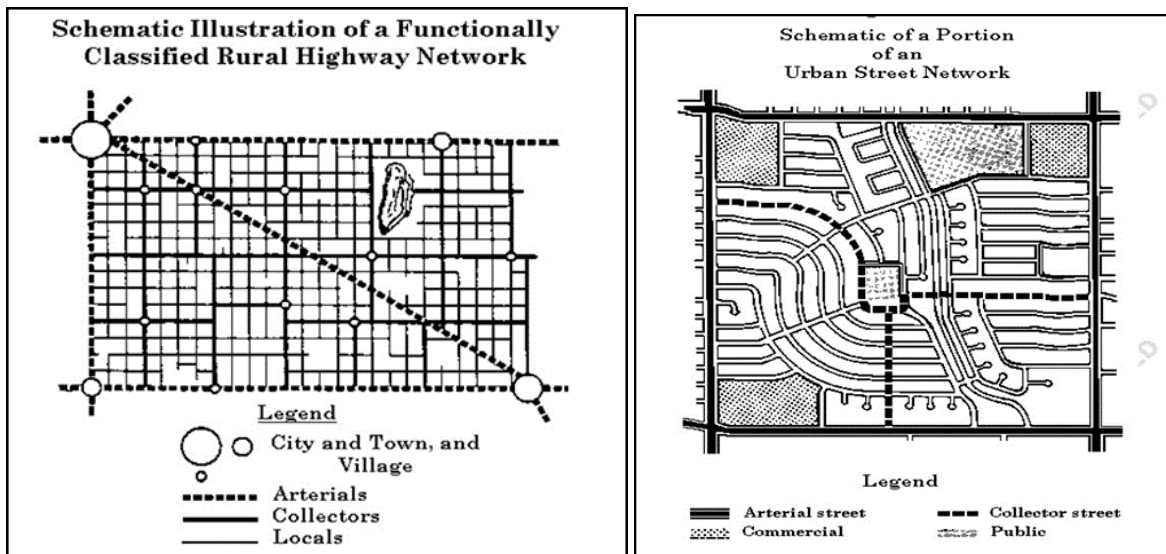
Storey County's communities are separated by long distances and extreme mountainous topography. These conditions create fragmented communities and make accessibility to the county seat, Virginia City, difficult for outlying residential and commercial developments. One must currently travel through Washoe County, including Reno and Sparks, or through Lyon County to travel between the north and south communities of Storey County. Approximately one hour is needed to travel between Virginia City and Lockwood, and Virginia City and the Tahoe-Reno Industrial Center. Total net commuters in Storey County have increased substantially from 2010 to 2021, with the increase attributed to inbound commuters (increased from 2,593 in 2010 to 17,527 in 2021). Conversely, the total number of outbound commuters has slightly decreased over the 11-year period.

Nevada State Route 341 and State Route 342 are the principal vehicle transportation routes connecting Virginia City and the Highlands to U.S. Highway 395 in Reno and Sparks, and Highway 50 and 395 in Carson City. Six Mile Canyon Road is a secondary route connecting Virginia City and Mark Twain with U.S. Highway 50 in Dayton, ten miles east of Carson City. Interstate 80 runs mostly along the northern bank of the Truckee River in Washoe County. Interchanges and bridges at Lockwood, Mustang, Patrick, Tracy/Clark, USA Parkway, Painted Rock, and Orchard provide access to communities, ranches, and other areas in the county along the southern bank of the Truckee River within Storey County. While there are a couple rough, unimproved four-wheel-drive-only trails that link the northern communities to Virginia City and the Highlands, most travelers must use I-80, I-580,

and Nevada State Route 341 for access to and from Virginia City. Several Revised Statute 2477 (RS 2477) roads throughout Storey County are currently being identified. RS 2477 was an 1866 Act which authorized the construction of roads across federal lands to assist in the development of the western United States as it continued to develop. This Act granted to counties and states the ability to establish rights-of-way across federal land, creating public highways. These roads often traverse federal lands, and were used for various purposes, including accessing mine sites, recreation areas, and general transportation. In 1976, RS 2477 was repealed under the Federal Land Policy and Management Act (FLPMA); however, this repeal was subject to “valid existing rights.” Following the repeal of RS 2477, many of these historic rights-of-way were closed, often with controversy. To identify the validity of past RS 2477 roads, Storey County is performing a comprehensive overview to locate and map all RS 2477 roads, particularly where they intersect private lands. This mapping exercise is anticipated to be completed in 2025 and will help clarify the location and validity of historic rights-of-way.

Definition and Functional Classification

This section describes the functional classification for all major roads in Storey County. Figure 8.2-1 provides definitions and illustrations of the functional classifications, including arterial routes, collector routes, and local streets for both rural and urban settings.



Source: Federal Highway Administration 1989, Figures II-2 and II-3

Figure 8.2-1. Functional Class Descriptions

Figure 8.2-1 (left) depicts a functionally classified rural network and Figure 8.2-1 (right) depicts a functionally classified urban street network— with the same basic concepts applying in both settings. A similar hierarchy of systems can be defined; however, because of the high intensity of land use and travel throughout an urban area, specific travel generation centers are more difficult to identify. In urban areas, additional considerations such as spacing, become more important in defining a logical and efficient network.

Figure 8.2-2 through Figure 8.2-6 depict roadway functional classifications for Storey County and the areas of Mark Twain, Tahoe-Reno Industrial Center, Lockwood, and Virginia City, respectively. The figures were provided by the Nevada Department of Transportation.

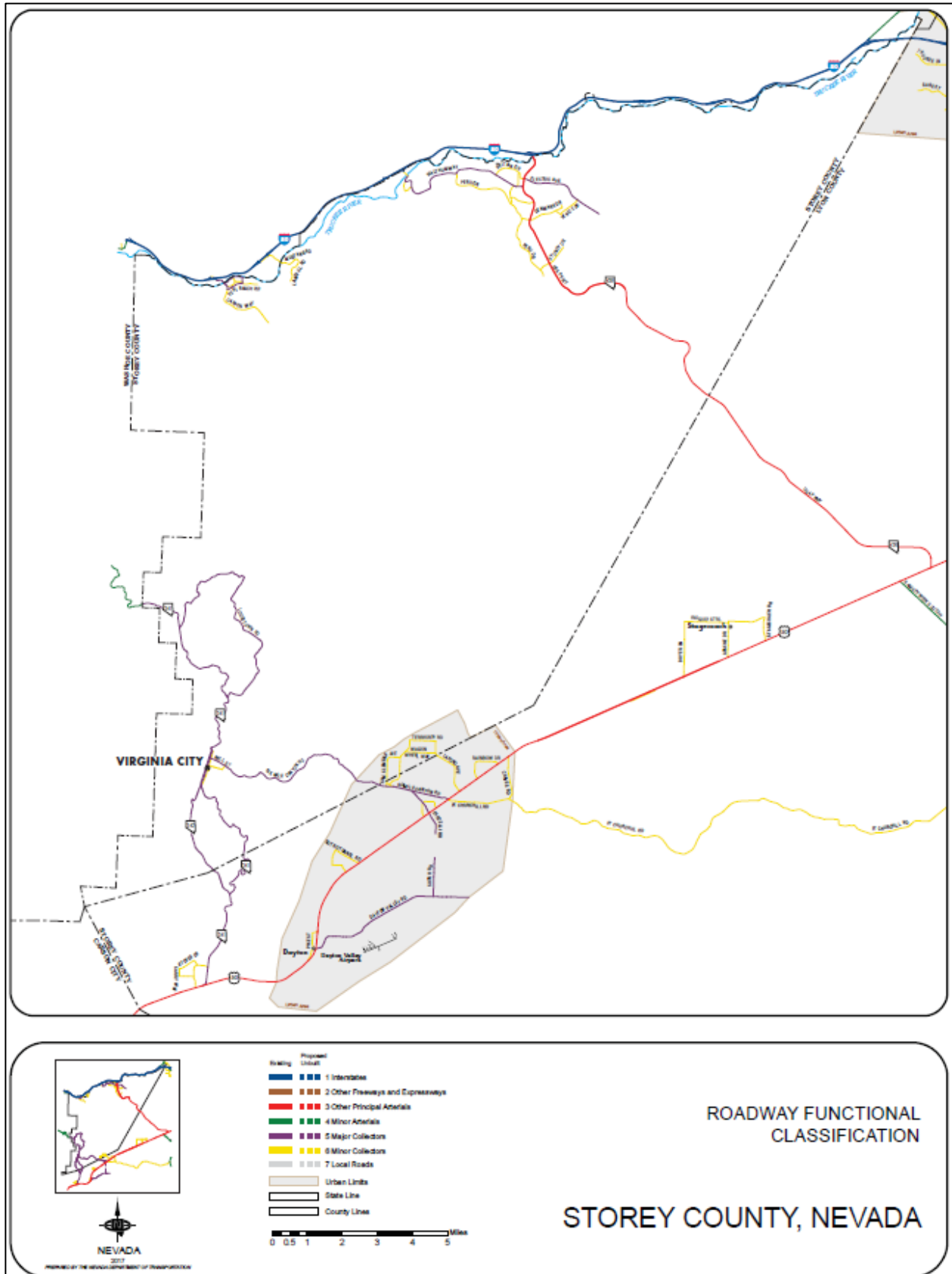


Figure 8.2-2. Roadway Functional Classification – Storey County

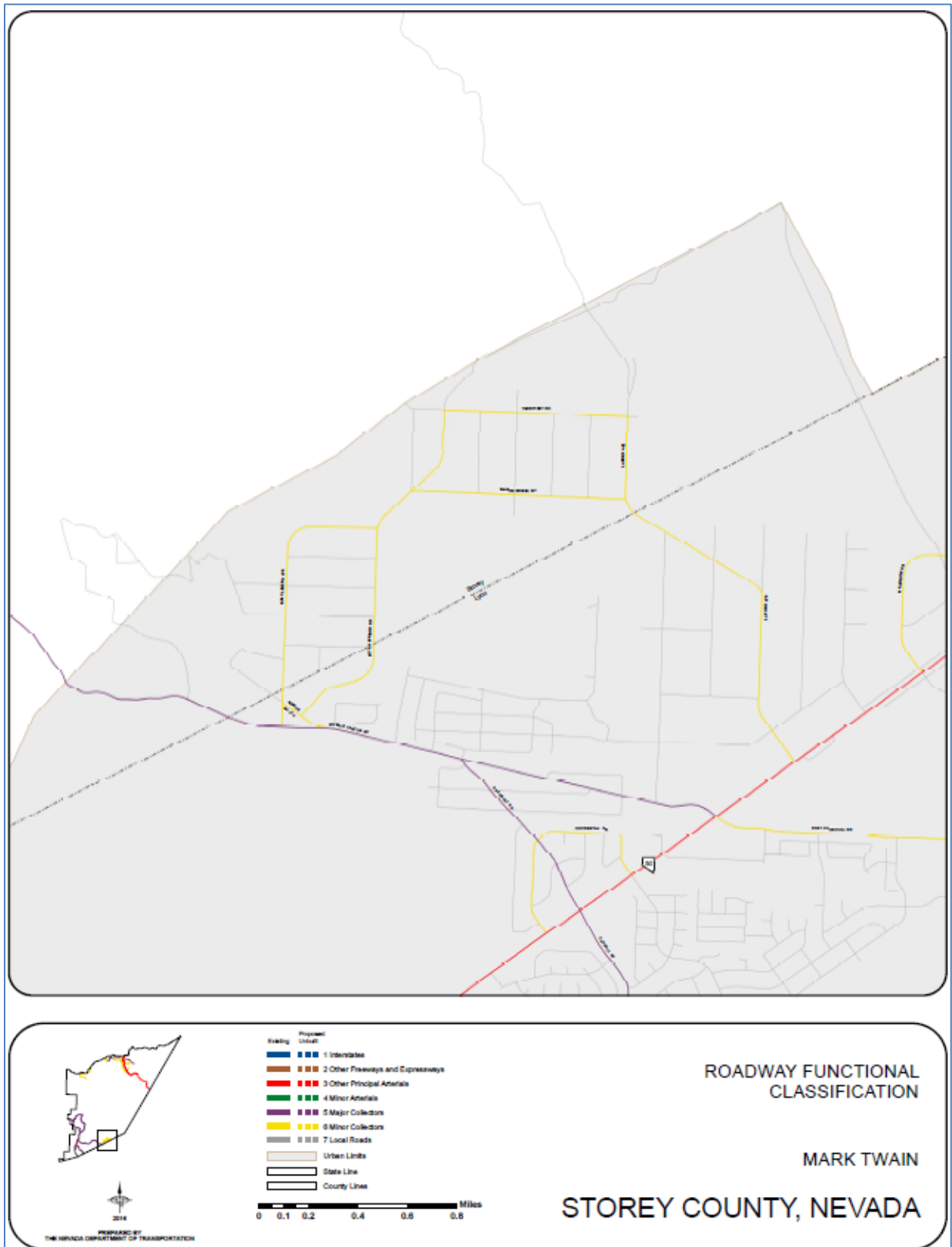


Figure 8.2-3. Roadway Functional Classification – Mark Twain Area

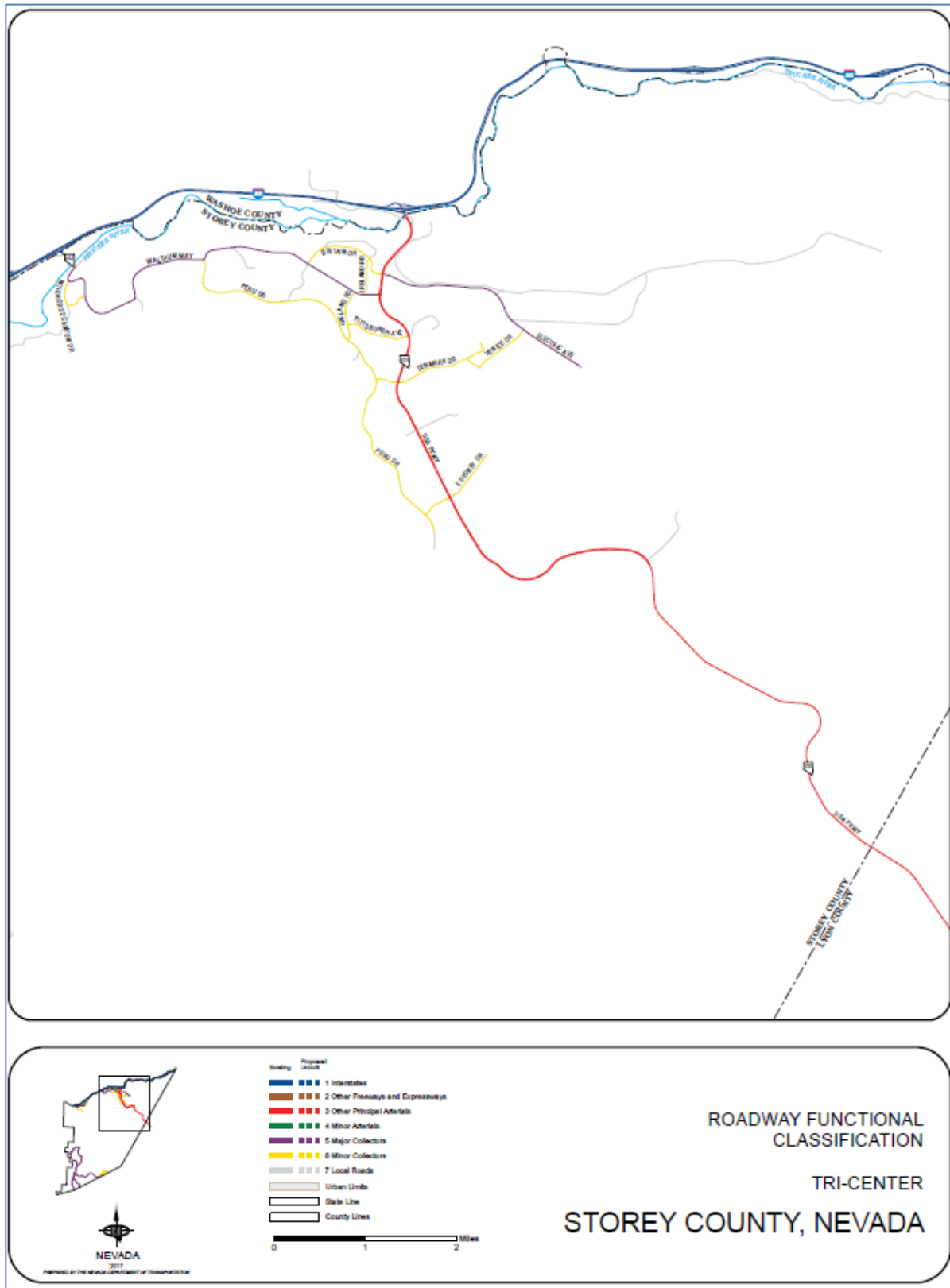


Figure 8.2-4. Roadway Functional Classification – Tahoe-Reno Industrial-Center

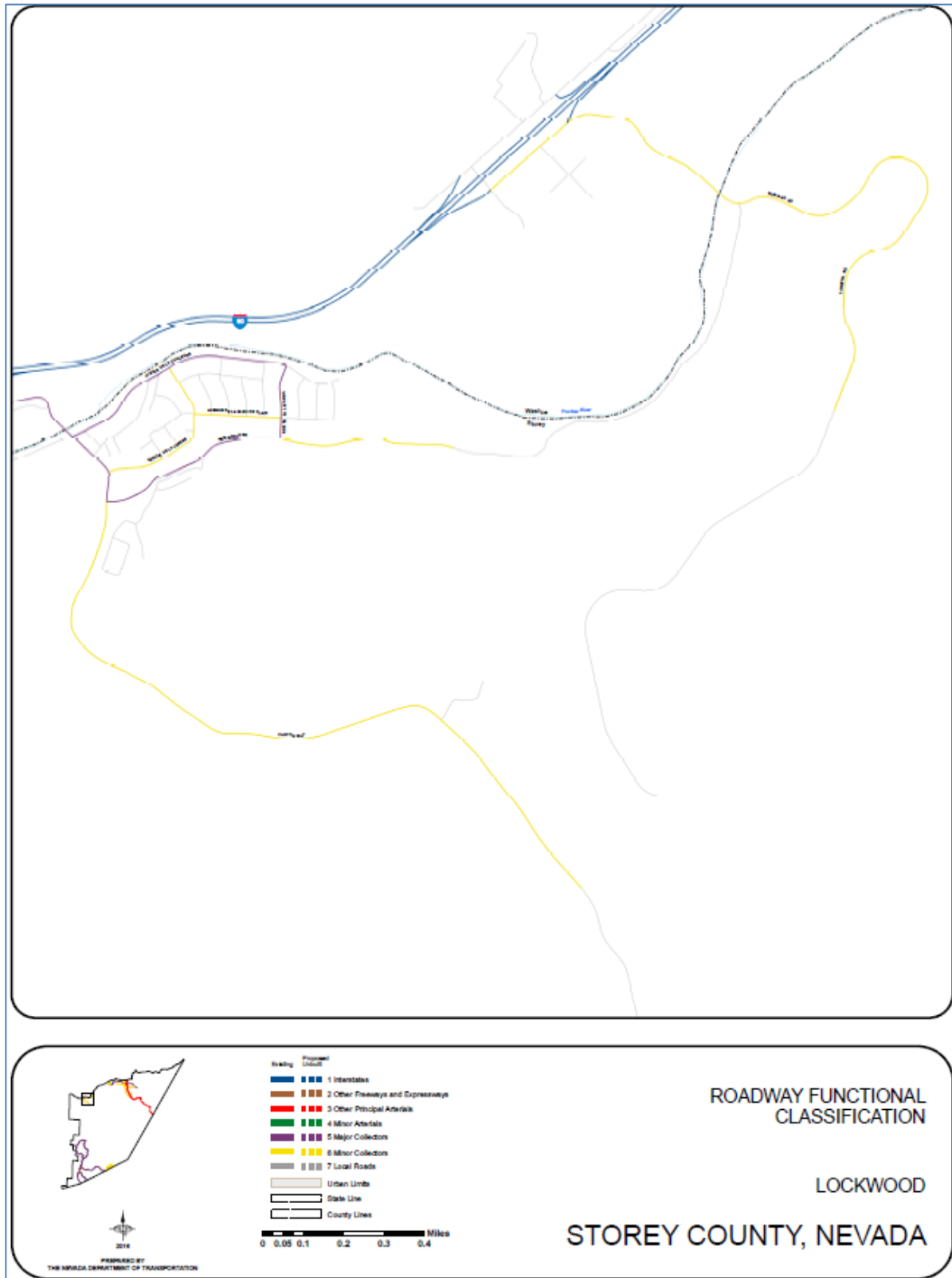


Figure 8.2-5. Roadway Functional Classification – Lockwood Area

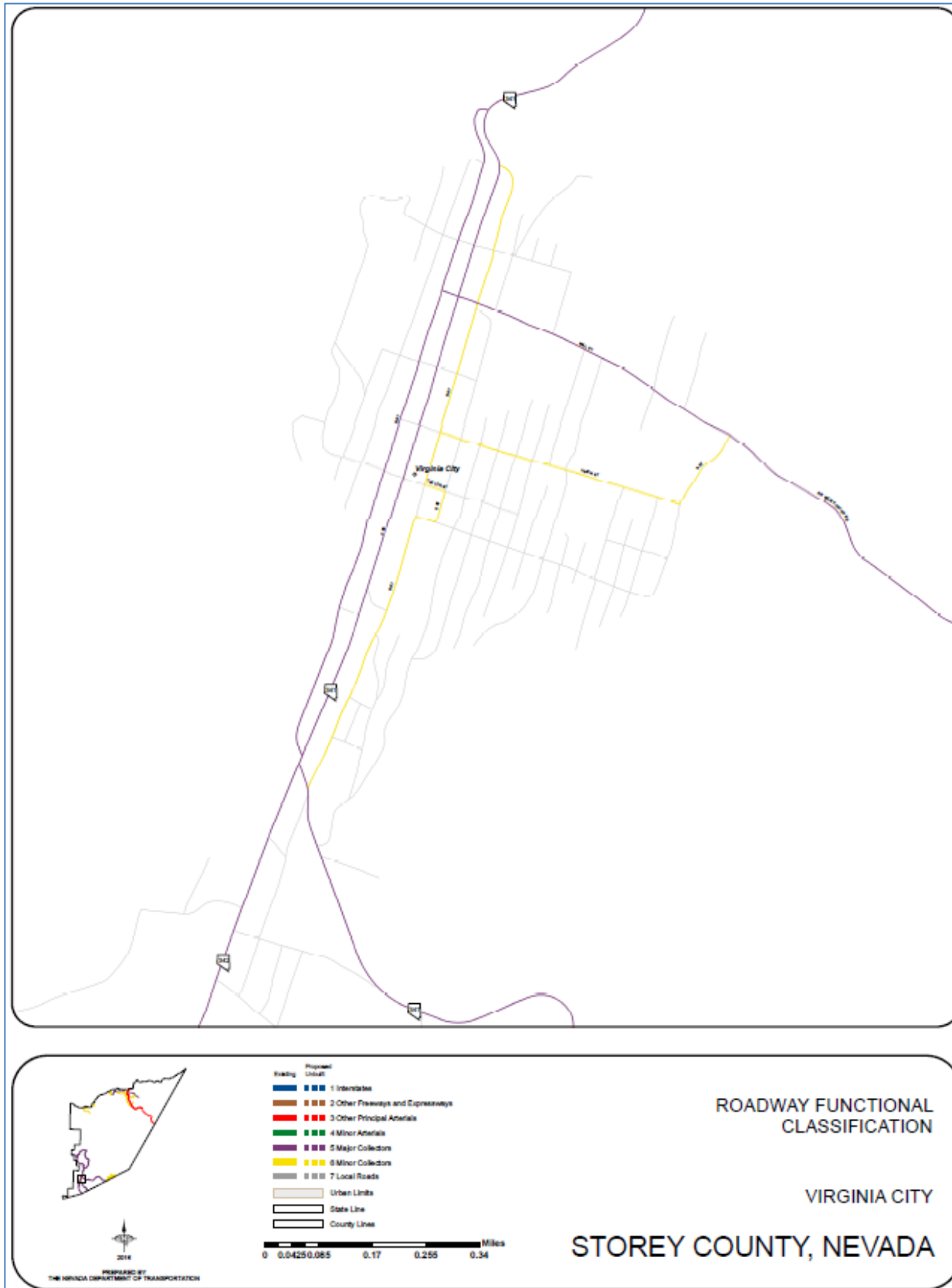


Figure 8.2-6. Roadway Functional Classification – Virginia City

8.1.2.5 Comstock Roads

Virginia City is a mixed-use community of low- to medium-density residential uses integrated with commercial, industrial, public, and tourism uses. Single-family and multi-family residences exist in the downtown commercial area and its surrounding neighborhoods. In addition to the approximately 1,146 residents that live in Virginia City and Gold Hill, as well as the abundant local businesses in the area, there are an estimated one million visitors arriving to the Comstock each year. Accordingly, there are notable transportation challenges in Virginia City and Gold Hill for towns with their population. Key transportation challenges identified on the Comstock, and potential short- and long-term remedies, are described below.

A new parking study is currently being developed which will analyze the existing conditions in the downtown Virginia City area. The parking study will identify available lots that could be used for parking, parking minimums required to accommodate the anticipated traffic, and whether parking could be added along the streets surrounding “C” Street.

Downtown Virginia City

Vehicle and pedestrian traffic often overwhelm arterial and collector streets in- and around downtown Virginia City, especially during special events that occur nearly every weekend between April and October. Storey County and the Virginia City Tourism Commission conducted preliminary ad hoc analyses between 2009 and 2015 to determine the feasibility of developing alternative routes to effectively bypass a significant portion of northbound and southbound traffic around the downtown area. The following concepts were found to warrant further study:

- Motor vehicle access to C Street may be removed in the downtown area, and traffic may be directed to bypass this area by concentrating vehicular traffic onto B- and D Street, and possibly portions of E Street and F Street.
- Northbound or southbound traffic may be diverted around C Street and the downtown area and directed to B-, D-, or F Street. This option would allow one-way traffic on C Street and would include perpendicular or angled parking in combination with one-way vehicle circulation.
- Both B- and D Street may be restricted to one-way traffic in conjunction with the above options. This would create a “loop” bypassing the downtown area. Parallel, perpendicular, and angled parking would be added along this route where needed.

C Street is owned by the Nevada Department of Transportation, and any improvements or modifications to the right-of-way must be approved by the agency. Many obstacles exist along these corridors that may hinder major modifications to existing traffic patterns. They include, but are not limited to: insufficient and irregular street widths, particularly for facilitating combined two-way traffic and on-street parking; irregular street alignment and private properties which encroach well into the existing traveled way; insufficient area and topography for connecting B- and D Street to State Route 341 at their north terminus; a bottleneck toward the central part of D Street caused by the expansion of the Virginia City Middle School building into the street right-of-way; and adverse safety and quality of life impacts to local residential areas caused by high volumes of through traffic.

While geographical and other constraints may inhibit significant improvements to traffic circulation in and around the Virginia City downtown area, many of the physical street characteristics act as traffic calming devices that encourage slower driving and contribute to vehicle and pedestrian safety. Until the comprehensive road improvements summarized above can be made to these entire corridors, it is recommended that the existing constrained conditions facilitating cautious driving remain in place.

Areas Outside of Downtown Virginia City

Many local and collector streets in Virginia City and Gold Hill are currently developed to rural standards with no curb-and-gutter, sidewalks, street lighting, and other such improvements. Most streets toward the eastern residential portions of Virginia City developed slowly over time with local residential development, and today many remain unimproved or with gravel surface. Many streets throughout Virginia City have the following characteristics:

- Terminate at dead-ends with no cul-de-sacs or vehicle turn-arounds
- Encroach into adjacent private properties or lands believed to be owned by the U.S. Bureau of Land Management.
- Need improvements including gravel base or paving
- Lack sufficient lighting and signage at intersections
- Lack pedestrian improvements such as sidewalks and crosswalks
- Too narrow for two-way traffic
- Private improvements which encroach into existing rights-of-way.

Many unimproved rights-of-way also fail to follow local topography. Chapter 3, Land Use, suggests that parcel mergers and re-plats should be considered in certain areas in the Comstock to better align parcels and local streets with area topography.

Discussed further in Chapter 3, Land Use, parcels and street alignments in Gold Hill appear to have been haphazardly located according to squatters' code of "first-come first-served" during the heyday of Comstock Lode mining. Land plats are riddled with inaccuracies, overlapping ownership, clouded titles, and travel ways diverging significantly outside of rights-of-way. Mapping and alignment of roads in this area will require determination of actual ownership and extensive cooperation with landowners and surveyors to resolve mapping inconsistencies on a case-by-case basis, mostly initiated by private property interests. County officials should continue to explore options toward resolving this matter community-wide.

Figure 8.2-7 illustrates existing travel ways significantly outside of rights-of-way, as well as misaligned rights-of-way which conform very little to area topography, railroads, and other ground conditions.



Source: Storey County Assessor's Office

Figure 8.2-7: Virginia City Aerial View with Lot Lines

Intersections on C Street

Vehicular and pedestrian congestion on C Street in Virginia City, especially during regularly occurring special events, can make navigating intersections in the downtown area challenging. This is especially evident at the intersection of C Street and Taylor Street. Vehicular traffic is slowed by narrow roads and frequent pedestrian crossings, effectively calming area traffic. However, County officials and the Nevada Department of Transportation should continue to coordinate plans to improve visibility and other safety measures while maintaining necessary parking space in the area. Potential improvements may include increased signage, speed humps, curb extensions, and designated crosswalks.

Intersection at the Fourth Ward School Museum

The intersection of State Routes 341 (Truck Route), State Route 342, and B Street facilitates existing local- and tourist vehicle traffic loads without noticeable issues. Fourth Ward School Museum and other attractions draw tourists to the immediate area. It is suggested that County officials communicate the conditions to the Nevada Department of Transportation so improved pedestrian access may be considered. Improvements to the area should address both all pedestrians crossing the road including tourists who commonly stand on- and near the road to view and photograph the immediate area. Storey

County is also considering the construction of a county rest area with restrooms near the south end of Virginia City.

The historic Fourth Ward School is considered one of the “crown jewels of the Comstock.” Plans and efforts to protect the building should be of utmost importance, and preserving the surrounding environment should receive the consideration. This master plan recognizes that the adjacent vehicular intersection may one day become overwhelmed as residential, tourism, and other growth occurs in Virginia City, Gold Hill, and outlying communities such as the Highlands and Painted Rock. If traffic flows at the intersection warrant additional traffic control devices, County officials should strongly discourage the installation of a lighted traffic signal, and instead work with the State agency to plan for and develop a round-about, or other such traffic management device that does not detract from the historic integrity of the adjacent Fourth Ward School.

Future plans include a Capital Improvement Project to extend the boardwalk from C Street through the Fourth Ward School intersection to the commercial and residential areas in the Divide area. This project would help connect local residents and tourists between the motel area and the attractions in the Comstock. Major improvements to this intersection should include landscaping to enhance the “south gateway” to Virginia City as supported by this master plan (see Chapter 3, Land Use). A survey of this intersection should be conducted to identify locations of existing right-of-way and private property boundaries to clarify the extent of possible improvements.

Virginia City Middle School

The expansion of the Virginia City Middle School along D Street has created increased congestion and safety risks (see Figure 8.2-8). The current street width at the site is not sufficient to facilitate the traffic loads present during peak hours, particularly at moments when students would be arriving and leaving the school. With the potential for the existing middle school to relocate to the Virginia City High School campus within the next 5 years, future opportunities to address traffic circulation will become more easily available. Studies looking at potential street alterations should be explored in more detail in preparation of the anticipated school relocation.



Figure 8.2-8. Intersection of State Route 341 Truck Route, State Route 342, and B Street Adjacent to the Historic Fourth Ward School

Figure 8.2-9 shows the bottleneck created by the addition to the Virginia City Middle School built in the D Street right-of-way. The remaining street width is not sufficient to facilitate regular heavy traffic loads. Figure 8.2-10 shows the Virginia City Middle School before and after the addition.



Source: Storey County Planning Department 2016

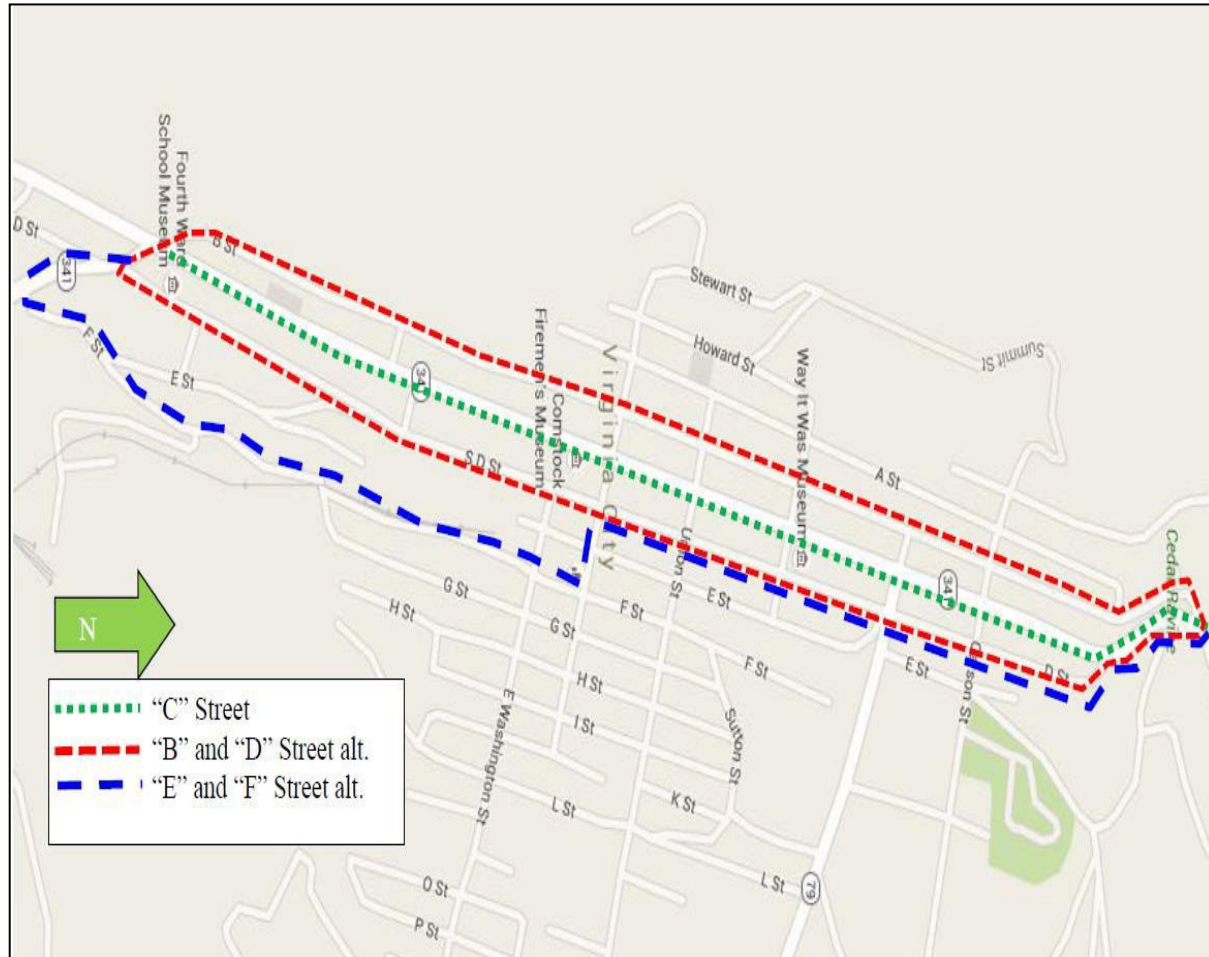
Figure 8.2-9: Bottleneck by Virginia City Middle School



Source: Storey County School District 2016

Figure 8.2-10: Virginia City Middle School – Before and After the Addition

Figure 8.2-11 depicts alternative concepts for routing traffic off C Street.



Source: Storey County Planning Department

Figure 8.2-11: Concepts for Rerouting Traffic Off C Street

8.1.2.6 McCarran

USA Parkway (State Route 439) and US Hwy 50 Conditions

The connections for the Tahoe-Reno Industrial Center are USA Parkway which has an interchange on Interstate 80 on the northern part of the county, and the recently completed US Highway 50 expansion. USA Parkway is a four-lane state highway which runs through Lyon, Storey, and Washoe counties. The route connects US Highway 50 to Interstate 80 via the Tahoe-Reno Industrial Center. The USA Parkway connection with U.S. Highway 50 offers increased capacity to service the industrial center. However, as the Tahoe-Reno Industrial Center continues to grow, increasing the capacity of USA Parkway and US Highway 50 should be considered to accommodate the anticipated increase in employee and residential travel.

Storey County should continue to coordinate with the Nevada Department of Transportation and the Washoe County Regional Transportation Commission in monitoring traffic volumes and patterns as

employment and other growth occurs at McCarran. Planning and other preemptive strategies need to be employed to maintain functionality of USA Parkway, US Highway 50, Waltham Way, and their connections to the interstate system, particularly Interstate 80. Waltham Way offers another connection to the interstate system through the Patrick Interchange. The existing Patrick Interchange needs to be upgraded to a full interchange within five to ten years, to service the additional demand for the industrial center. This full interchange will also allow expected commercial development on the south side of Interstate 80 at Waltham Way to include fueling station, truck stops, hotels, restaurants, and other types of traveler and logistics accommodations.

Discussion has occurred at the local, state, and federal level about the future potential for USA Parkway to become part of a regional interstate system, such as the Interstate 11 project between Mexico and Canada. An interstate designation can only come from the U.S. Congress. The Fixing America's Surface Transportation Act of 2015 designated Interstate 11 between Las Vegas and Reno. Designation as an interstate highway is a firm demonstration to the importance and the construction of Interstate 11 to the United States. Interstate 5 in California is at full capacity and significant expansion is seen as having too great of an environmental impact on that alignment. This project is expected to significantly influence the western United States and national economy.

It may be in Storey County's best interest to support aligning Interstate 11 with USA Parkway. Storey County should actively coordinate with the Tahoe-Reno Industrial Center and the Nevada Department of Transportation to evaluate the potential alignment. This alignment may be ideal due to the available vacant land at the surrounding the Tahoe-Reno Industrial Center, and the lack of residential development. This alignment may help Storey County and the Tahoe-Reno Industrial Center establish northwestern Nevada as the major international economic center for the region.

USA Parkway (State Route 439) Future Capacity

A brief analysis of expected traffic flows in the next 20 years reveals that USA Parkway (State Route 439) is the most likely transportation corridor in the county to experience congestion. The completion of USA Parkway through to Silver Springs offers traffic relief on USA Parkway, Interstate 80, and local arterial ways such as Waltham Way. With average daily traffic counts around 4,000 as of 2013, and 7,500 in early 2015, the delays due to congestion could significantly increase when the average daily traffic count hits an anticipated mark of 10,000 (Highway Capacity Manual Methods 2010). Employment numbers are growing quickly in the Tahoe-Reno Industrial Center, and it is expected traffic count will exceed 10,000 within five years. Average traffic count numbers and overall traffic efficiency should be closely watched. With an increase in traffic, additional signaled intersections may become necessary to facilitate movement, which may contribute to increased congestion along these corridors. Future street improvements must consider the impacts of congestion on the surrounding areas, and alternative paths and traffic calming measures should be studied in more detail. Alternative methods for workers to arrive and depart from the Tahoe-Reno Industrial Center should be planned and developed. Possible alternative methods considered should include car/van pools connecting population centers and other commuter services such as commuter transit by buses and the rail network. Van pools are currently being used in the industrial center and show great promise for efficiently moving employees. The planning efforts related to commuter transit should continue to be coordinated with the Washoe County Regional Transportation Commission and the Nevada Department of Transportation.

Patrick and USA Parkway Interchanges

McCarran and the Tahoe-Reno Industrial Center are now principally accessed from Interstate 80 at the Patrick Interchange to the west and USA Parkway interchange to the east.

The USA Parkway interchange was developed in 2005 and meets traffic capacity for the area. However, the Nevada Department of Transportation initiated a traffic capacity analysis in the spring of 2015 to determine what improvements may be needed to the interchange to meet anticipated future traffic loads and patterns.

The Patrick Interchange was constructed long before the McCarran area was developed. Patrick Interchange connecting half of the industrial center to the interstate, is substandard for existing traffic loads and may become a major factor inhibiting further development in the immediate area. A portion of the interchange is in Washoe County, but its principal function is to provide access to McCarran, located entirely in Storey County. It is recognized that the interchange and associated collector road are under the jurisdiction of the Nevada Department of Transportation. However, county officials are encouraged to collaborate with State transportation officials to secure funding and resources necessary to improve the infrastructure.

Road Dedication per Tahoe-Reno Industrial Center – Storey County Development Agreement

Tahoe-Reno Industrial Center and Storey County entered into a development agreement in 2000. The agreement detailed the process for the developer to devote resources to infrastructure investment in the center. After the infrastructure is constructed, the improvement may be dedicated to the County. The County will then own, manage, and maintain the facility. The County will reimburse the developer for the investment once net revenues become available from the infrastructure. The development agreement allows for rapid and efficient public investment. To date, many roads have been constructed and dedicated to the County.

McCarran to USA Parkway Interstate 80 Corridor

Continuous population and development growth in western Nevada is increasing pressures on the existing roadway systems. The Interstate 80 corridor east of the city of Sparks to SR 439 (USA Parkway) has seen a significant increase in congestion and safety issues as a result of the growth in the region. The Tahoe-Reno Industrial Center encompasses approximately 107,000 acres which are privately owned; however, much of this land is mountainous. The annexed portions of the industrial center include over 100 businesses employing roughly 15,000 permanent employees. Employee projections at the industrial center range from 35,000 to 50,000 employees; however, these projections will be heavily influenced by the type of industries arriving to the industrial center. For example, once attracting primarily distribution and manufacturing supporting thousands of employees, the Tahoe-Reno Industrial Center has recently become a principal hub for data centers, each averaging far less than 100 employees. Portions of the Interstate 80 corridor cross steep terrain within the Truckee River canyon and have sinuous alignment with minimal shoulders. These conditions, combined with high traffic volumes, result in a system sensitive to even minor incidences (e.g., weather, accidents, vehicle breakdown) and that routinely breaks down with delays lasting hours. The need to improve the corridor is apparent. Consequently, many reports and presentations have been prepared by various public agencies and private stakeholders to better understand and address the changes and developing

needs within the Interstate 80 corridor.¹

A list of recommendations and proposed projects to address the issues identified along the Interstate 80 corridor has been provided in the Interstate 80 Corridor Study prepared for the Nevada Department of Transportation. The overall recommendation is to widen Interstate-80 from Vista Boulevard in Sparks to USA Parkway, providing one additional lane in each direction. Widening the interstate may exceed \$2 billion and require a decade of environmental impact assessment work before construction could begin. Both cost and time for assessment prevent traffic needs from being immediately addressed.

Storey County should continue to work closely with the Nevada Department of Transportation to identify and implement the most desirable and effective proposals to make the Interstate 80 corridor a safer and more efficient roadway, especially as the region continues to grow and attract more travelers. The County should also continue to support, and incentivize if possible, housing opportunities that divert travelers away from the Interstate 80 corridor toward areas that are aligned with this master plan.

8.1.2.7 Virginia City Highlands and Mark Twain

The Virginia City Highlands area is five miles north of Virginia City. Access is provided by Nevada State Highway 341 (also called Geiger Grade) on the west side of the community. Within the Virginia City Highlands area, local and collector paved and unpaved roads are maintained privately.

Cartwright Road and Lousetown Road are both two-lane paved roads and are rural collectors to connect the community to State Highway 341. All the paved portion of Lousetown Road and about two miles of Cartwright Road are maintained by the County. The other roads in the Virginia City Highlands area are either maintained by the two property owner associations in the area or are not maintained by any formal organization. There are several jeep trails on the northern and eastern part of the Virginia City Highlands that can offer emergency ingress and egress to the area.

The Virginia City Highlands area is less than half built out with many parcels of empty land. While water availability to service the potential residential growth is of concern, the status of the roads is also an obstacle to growth. General upgrading of the roads to either better-maintained gravel roads or paving more of the roads would increase demand for the properties in the Virginia City Highlands area and help drive infill.

Steep grades and sharp- and blind corners are a problem, especially for school buses, in some sections of the Virginia Highlands. Poor weather conditions can create hazardous driving conditions. Many cul-de-sacs do not have sufficient turn-around space for emergency vehicles. There is little the County can do policy-wise with these issues because many of the roads in the Virginia City Highlands area are privately maintained. One major concern for residents in the area is lack of a secondary road and additional access points for emergency routes. With only one identified roadway into the Virginia City Highlands community, residents worry that an emergency could lead to congestion along the route, causing potential catastrophic results. While a secondary road is not desired by the local residents at this time, if opinions change moving forward, feasibility studies can be conducted to analyze the costs

¹ I-80 Corridor Study; North McCarran Boulevard to USA Parkway; Reno/Sparks Freeway System; Nevada Department of Transportation

and impact of constructing a secondary road with additional access points which aligns with this master plan.

Due to increased traffic, and continued residential and commercial growth, the Nevada Department of Transportation conducted a study to evaluate potential future enhancements along U.S. 50 in Dayton, Nevada. The study addressed long-term highway improvements to enhance safety, capacity, and intersection operations along an eight-mile segment of U.S. 50 from Pinecone Road to Neigh Road. As a result of the study, three long-term concepts emerged for potential future consideration. The concepts range from controlling or limiting points of highway access for a less-congested highway commute to additional highway access via multiple intersection control designs. Specific enhancements could include a divided highway, additional highway lanes or frontage roads, roundabouts, traffic signals, and other intersection designs.²

8.1.2.8 Lockwood-Mustang

Lockwood-Interstate 80 Interchange

The Interstate 80 to Lockwood Interchange currently provides principal access to Lockwood and portions of the Lagomarsino area. Canyon Way is the main collector route connecting the area to the interchange. This infrastructure serves approximately 1,333 residents and 15 local commercial and light-industrial users. The connection also provides primary access to a large quarry mine and the Nevada Uplands industrial area, both accessed approximately three miles south of Lockwood toward the south terminus of Canyon Way.

The road infrastructure was constructed long before much of the existing commercial and residential development in Lockwood. Nominal improvements were made to the interchange and roadway in 2023 including a 1,100-foot expansion of the western ramp and associated 10-foot increase in the width of the roadway. However, the interchange remains substandard for existing and anticipated future traffic loads and types. Figure 8.2-12 depicts the intersection connecting the Lockwood area with Interstate 80. On the north side of Interstate 80, the westbound offramp traffic (heading toward Lockwood) must negotiate a sharp turn and this offramp meets with the westbound onramp traffic (heading west on Interstate 80).

In 2009, Mustang Road, approximately three miles east of Lockwood, was extended to the Lockwood Regional Landfill resulting in a major reduction in truck traffic on the interchange and Canyon Way because all truck traffic to and from the landfill was permanently diverted to the Mustang interchange and Mustang Road. The reduction in truck traffic significantly improved safety for children and pedestrians crossing Canyon Way between their residential neighborhoods and the Lockwood Market convenience store.

This master plan supports industrial and other economic activity in the Lagomarsino area. However, it is recognized that under existing circumstances such activity may increase truck and other traffic on Canyon Way and the Lockwood interchange. It is recommended that County officials collaborate with Lagomarsino area land developers to establish alternative principal access alignments, such as to Mustang Road. This master plan supports conducting additional feasibility studies to analyze

² US 50 Operational Study; Lyon County, Pine Cone Road to Neigh Road; CA Group, Inc.; Nevada Department of Transportation

emergency access alignments when Interstate 80 is not available.

It is recognized that the Lockwood interchange and portions of Canyon Way are in Washoe County and are therefore under the jurisdiction of the neighboring county and the Nevada Department of Transportation. However, Storey County officials should continue to coordinate with State transportation officials to secure necessary funding and resources to improve this infrastructure for current and anticipated future uses. Land developers causing substantial impacts to these systems should also be required to directly contribute toward improvements needed to support new uses.



Figure 8.2-12: Existing Infrastructure and Intersection Connecting Lockwood Area to Interstate 80. View to north.



8.1.2.9 Painted Rock

Interstate 80 is the primary access to Painted Rock. Painted Rock Road from the Painted Rock Exit connects the area to the interstate. The design and condition of local roads, bridges, and other such infrastructures is problematic for this community.

The bridge crossing the Truckee River from Washoe County is the only practical access to this area. The bridge is one-lane, antiquated, and below the Federal Emergency Management Agency 100-year base-flood-elevation. Canal Road, serving five local residences, is also problematic. Running along the Truckee Carson Irrigation District Canal, the one-lane road is narrow and windy with no shoulder or barriers between the roadway and the canal.

Secondary access exists via approximately 12 miles of unimproved roads and trails between Painted Rock and Fernley. However, many of these routes are insufficiently mapped, difficult to navigate, and encroach into private property including into Union Pacific Railroad rights-of-way and encroach into Pyramid Lake Paiute Tribal lands. Further exacerbating the problem, the Union Pacific Railroad has employed concerted efforts to removing at-grade railroad crossings in the area without providing alternative means of accessing adjacent land.

The county should consider working with land developers, federal grant administrators, the Union Pacific Railroad, and other organizations to improve and provide reliable secondary access to the northern and southern parts of this area. Until improved railroad crossings are developed by the Union Pacific Railroad, the County should strongly contest barring of access over existing at-grade railroad crossings.

8.2 Other Transportation Modes

8.2.1 Railroads and Light Rail

Rail service is provided to the McCarran community via a nine-mile-long spur at the Tahoe-Reno Industrial Center. This connection provides vital support throughout the industrial center by connecting the community to the Union Pacific transcontinental railroad. The rail system is freight only and provides no passenger services. As the Tahoe-Reno Industrial Center continues to grow, expansion of rail services will be necessary to maintain the success of the region. Per the development agreement between the Tahoe-Reno Industrial Center and Storey County, the Tahoe-Reno Industrial Center may expand the rail line as they see fit, and Storey County maintains the right to access and utilize the infrastructure provided. As future traffic loads increase on USA Parkway and Waltham Way, the rail line may add passenger services to help supplement the industrial area.

In Virginia City, the restored Virginia & Truckee Railroad is operated solely as a tourist attraction. A recent extension of the rail crosses US Highway 50 in Mound House and connects to the communities of Virginia City and Carson City – this extension will help provide additional access to Gold Hill and Virginia City, increasing mobility and potential economic boosts. The Virginia & Truckee Railroad offers round trip, weekend tours from Virginia City to Gold Hill and an extended route from Carson City to Virginia City.

8.2.1.1 Bus, Aircraft, and other Transit Modes

Bus Service

Currently, there is no public bus service in Storey County. Local and inter-local bus services are provided in the neighboring jurisdictions of Washoe County and Carson City, but no services connect with Storey County. The Storey County School District offers bussing for students to and from school. Storey County Health and Community Services provides shuttle services for Storey County residents over the age of 60 to and from medical appointments, pharmacies, grocery stores, social outings, etc. The Virginia City Tourism Commission provides additional shuttle services for residents and tourists during events at the fairgrounds and other special events around the Comstock.

In 2009 Storey County and the Carson City Regional Transportation Commission piloted an inter-local transit bus system between Carson City and Virginia City. The bus operated two to three days per week. Despite continued efforts by County staff to promote ridership, including the arrangement of a hosted ride-and-learn event for hesitant riders (Figure 8.3-1), popularity of the system quickly declined, and one year later it was discontinued. Riders cited confusing bus schedules in Carson City and the fear of missing the inter-local connection home as the reasons for not using the service.

County officials should maintain the potential for inter-local transportation between Virginia City and neighboring counties. However, County officials should consider the known logistical limitations of implementing public transportation services in the connected areas when compared to major metropolitan areas when planning for future expansion of services. Additionally, County officials must keep the public perception and hesitancy associated with public transportation in mind when considering expansion.

This master plan recognizes that bus services may become economically and otherwise viable as growth continues in McCarran. With the completion of USA Parkway between Interstate 80 and US Highway 50 and the associated growth that it and other infrastructure improvements in the region will cause, the need for transit services between the Tahoe-Reno Industrial Center and the surrounding areas of Fernley and Silver Springs may become increasingly important. Accordingly, the county is working with the Washoe County Regional Transportation Commission to determine the feasibility of providing bussing and other public transportation systems to residents and workers at the northern part of the county. Special focus is being directed toward providing this service to workers at the Tahoe- Reno Industrial Center. County officials should recognize and prepare ancillary improvements, such as park-and-rides and bus staging areas, which will support existing and anticipated public transportation systems.

Wednesday route gives access to shopping, movies, doctors

BY JANICE HOKE

The new bus service between Virginia City and Carson City was a big hit with 60 riders on last Wednesday's drive, both Comstock residents and visitors from Carson.

At 9:30 a.m. on Oct. 7, the Storey County Senior Center, 13 enthusiastic riders climbed aboard the 21-passenger bus driven by William Orman of Virginia City, regular driver for Jump Around Carson, the Carson City transit authority.

"Usually I drive to Carson City," Chuck Siefert of Virginia City Highlands said. "This way, I get to look everything and I won't have to do the driving."

At the next stop at the Delta parking lot on C Street, seven people from Carson



Art Kuzniewski, right, gets off the bus and heads across the street to his job at the Delta Saloon.

Photos by Janice Hoke and Angela Mann

A full bus pulls into the Delta Parking lot to load more passengers.



City disembarked to visit the Comstock. Last stop was across from the Fourth Ward School, and the bus, now full, veered left to take the truck route to Carson City.

"This is perfect," said Art Kuzniewski, who works at Delta. "I'm getting here half an hour early. I'd like to do this

See Bus, page 8

think it's my ever... a seat back at... and here... at West... so stop... is even... void... to Slot... the bus to... k. What... ger on... Virginia... two hours... Robert... ly had... went... g back... Is a fast... story. I

Rosie Conley, left, Mario Monte, Karen and Ben Wiener see at their destination for shopping.

Photos by Janice Hoke

novice on transit, but he's smart, not frustrated easily, makes friends with the seniors. He's learning fast.

Souza said, "Storey County is demonstrating that it listens to its residents and strives to meet resident needs."

She said more work is needed, however.

"I would love to see the county also make progress on public transportation for Mark Twain and Lockwood residents. We certainly have residents in need of transportation in these communities."

Karen Lasley of Stagecoach will drive the afternoon Virginia City bus.

her... bother her friends for rides... Karen Wiener of Cold Hill, who serves on the board of the senior center, came along to learn the routine of charging buses so she can help others, she said.

"This is a great idea," Wiener said. "A lot of seniors don't have transportation."

planner, who has worked nine months to bring the project to fruition.

In the one-year agreement between JAC and Storey County, JAC supplies the buses, bus drivers, maintenance and scheduling as well as publicity in Carson City. Storey County pays a fee which Osborne said divides out to about \$2 per Storey County citizen per year, which does not include some revenue from fares.

JAC Director Patrick Pittenger first came more than a year ago to propose the arrangement to the Storey County Commission at the prodding of Katherine Souza, a marriage and family counselor at Community Chest Inc.

"Dr. Katherine Souza, she's the one," Pittenger said. "She was the first person to ask the county board to form an RTC (Regional Transportation Commission)."

In March of 2008, Souza published results from a

Osborne checks with the driver to make sure this bus is going to Wal-Mart.

This article in the *Comstock Chronicle* (Janice, 2009) features a field trip provided to senior citizens of Storey County that was sponsored by Storey County and its planning staff. The purpose of the field trip was to educate local citizens and reduce anxieties associated with navigating sometimes challenging inter-local bus transfer schedules. Participants were guaranteed a ride home by the County – even if they missed a connecting bus. The trip included lunch, self-guided and hosted errands, and other affairs in Carson City using its "Jump Around Carson" bus system.

Figure 8.3-1: *Comstock Chronicle* Transit Article (2009) Pedestrian

Aircraft

No airports or airstrips exist in Storey County. Small, non-schedule airports exist in Carson City and Silver Springs. The closest commercial airport, the Reno-Tahoe International Airport in Reno, is approximately 20 miles from Virginia City and McCarran. Taxi services are available to and from the Reno-Tahoe International Airport, but all taxi companies are based in the adjacent jurisdictions of Reno, Sparks, and Carson City. Other ride-share options such as Uber provide alternative transportation services throughout the region.

Vanpools

Vanpool transportation services are available to employees and companies of the Tahoe-Reno Industrial Center. To date, there are over 50 vans in operation, reducing the number of drivers by 500 drivers per day from Interstate 80 between the Tahoe-Reno Industrial Center and the neighboring cities of Reno, Sparks, and Fernley. Unlike fixed-route bus systems, these vanpool programs provide site-specific scheduling, creating needed flexibility to meet the demands of companies and their employees. Expansion of these services is expected as the region continues to grow.

Walkability is important to the health and wellbeing of a community. This master plan aims to support walkable and mixed-use communities through neo-traditional community design.

With the unique topography of Storey County and the desire to promote tourism, there are marketable pedestrian opportunities throughout the county, particularly in Virginia City/Gold Hill and Painted Rock.

8.2.1.2 Comstock

Virginia City/Gold Hill provides many walkable destinations for both locals and tourists. C Street contains most of the destinations in the area, including restaurants, historic sites, hotels, and shops. Tourists park in the area surrounding C Street and walk the street using the boardwalk. Pedestrian infrastructure is limited in Virginia City to the boardwalk and limited improved sidewalks along C Street. The boardwalk area of C Street is a popular attraction for the historic downtown and should be preserved. Sidewalks beyond the boardwalk areas of C Street are a patchwork at best. The adjacent streets, B Street and D Street, have little to no pedestrian infrastructure – tourists and locals must walk along roads to connect to C Street and the surrounding communities. Increased pedestrian traffic is expected in the future, but there are no planned pedestrian infrastructure improvements. Maintenance of the boardwalk and potential expansion north and south for the length of town has been identified as a potential Capital Improvement Project.

The development of the fairgrounds on F Street presents a unique pedestrian issue for Storey County. With crowds of 4,000 people, pedestrian accessibility to the fairgrounds will be crucial. Shuttle services, temporary infrastructure, public information campaigns, and other event planning should be examined for each large event.

Furthering the 1993 Parking Inventory Study by Leigh, Scott, and Cleary, Inc. (Appendix D) parking areas should be planned outside the Virginia City downtown area, and investments should be made for pedestrian improvements to connect the new parking areas to downtown. The existing infrastructure is a problem due to the broken and degraded condition of the curbs along much of C Street. Improved pedestrian infrastructure along and surrounding C Street to assist with the safe movement of tourists and locals should be a priority. A parking study addressing current issues and potential solutions throughout

the Comstock is in development and is expected to be completed by 2025.

8.2.1.3 Highlands and Mark Twain

Within Highlands, Mark Twain, and other rural areas of the county there are few pedestrian destinations. Most of the pedestrian activity is for recreation and fitness. There is no pedestrian infrastructure in these locations. While no need for infrastructure is expected, Storey County should promote health, wellness, and recreational activities for its residents. County officials should consider developing trails for pedestrian/bicycle recreation that can help connect the community as well as provide safe and accessible recreation opportunities.

8.2.1.4 Lockwood and Mustang

Lockwood contains a few pedestrian destinations including retail, community center, and school. While there is little pedestrian infrastructure in these locations, pedestrian activity should be encouraged and safety maintained. Further consideration should be given to the expansion of pedestrian infrastructure connecting the residents of Lockwood and Mustang to existing retail and community destinations, as well as including integration with the Truckee River.

8.2.1.5 Painted Rock

It is anticipated that the Painted Rock development will be a mixed-use development. As the development plan is prepared, there should be a significant pedestrian component to allow for pedestrian movement. Connecting Painted Rock residents to their surroundings via sidewalks and/or trails should be at the forefront of development planning.

8.2.1.6 McCarran

The Tahoe-Reno Industrial Center has potential pedestrian destinations and is expected to have more in the future. Because it is expected that vehicular demand on USA Parkway (State Route 439) will exceed capacity, traffic management practices will be implemented and demand for other modes of transportation will increase. There is no pedestrian infrastructure in the industrial center. Pedestrian activity in the industrial center and the demand for infrastructure are expected to increase. Priority infrastructure improvements should cover crosswalks at potential high pedestrian origins and destinations. Additional infrastructure improvements should focus on maintaining any shoulder or clear space for pedestrians on and around roads to use as infrastructure for future pedestrian improvements. The pedestrian situation in the industrial center should be actively monitored year-to-year to address safety situations as they arise.

Some of the employees in the industrial center may want trails/multi-use paths as recreation options as well. The County should welcome conversations with the Tahoe-Reno Industrial Center to support such improvements.

8.2.2 Bicycling

Many commuters have turned to cycling to avoid congestion, and recreational cycling is becoming popular for all ages. The Nevada Department of Transportation is in the final stages of producing county bicycling plans for each county in the state. This plan for Storey County will identify the County's role in Nevada for bicycling. The Nevada Department of Transportation plan identifies the Interstate 80 corridor as a national cycle touring route. The stretch of interstate between Sparks and Fernley exhibits questionable safety levels for bicycle use, creating a desire for alternative routes to connect the two communities.

State Route 341 (Geiger Grade) is a regional attraction for bicyclists. More advanced riders are attracted to the elevation gains and natural scenery. Bicycle and motor vehicle safety on Geiger Grade has been a perceived concern by local residents; however, data from the Nevada Department of Transportation suggests that this bicycle safety is not a large concern now or expected to be in the foreseeable future. Future design of bicycle access infrastructure should also consider safety for bicycles and motor vehicles. Modest economic activity in the region and in Virginia City is associated with cyclists. There may be an economic opportunity for a bicycle mountain climb, downhill race, or related event to be hosted in Virginia City. Currently there are many areas of Storey County that are difficult to access except by jeep trail. These areas show potential for mountain biking ecotourism.

8.2.2.1 Lockwood, Mustang, and Painted Rock

Lockwood, Mustang, and Painted Rock are just south of Interstate 80 in the northern part of Storey County. There is limited bicycle activity throughout these areas; however, as these communities continue to grow, future bicycle infrastructure should be explored. Multi-use paths could help create a safe east-west alternative to Interstate 80 and allow for additional commuter traffic to and from the Tahoe-Reno Industrial Center. The Tahoe Pyramid Trail should be considered as a potential connection in the future. However, Lockwood residents have expressed concerns about the expansion of bicycle trails through the center of their community, much of which includes the privately owned common interest communities of Rainbow Bend and the Lockwood Community Corporation. The County supports the effort of the Tahoe-Pyramid Trail; however, the County has consistently advised the bikeway organization to coordinate with the Lockwood community to develop alternative alignments which could lessen impacts and do not encroach on private property.

8.2.2.2 McCarran

An opportunity may exist to connect Lockwood and Sparks via a multi-use path (Tahoe-Pyramid Trail). There may also be an opportunity to connect the Tahoe-Reno Industrial Center with the Lockwood and Painted Rock areas as commuter routes.

8.2.2.3 Comstock and Highlands

Very modest cycling activities exist in these areas. The significant vertical variations throughout the area present a challenge that is expected to limit cycling activity.

8.3 Capital Improvement Projects

Please refer to the Capital Improvement Project Plan (Appendix H) for all planned capital improvement projects addressing transportation needs in Storey County.

8.4 Goals, Policies, and Objectives

Goal 1: Direct and manage development that provides for orderly, efficient, safe, and sustainable multi-modal transportation that connects communities.

Policy	
Policy 1.1	Develop pedestrian-friendly communities and downtown.
Objectives	
Objective 1.1-1	Situate new residential developments so enterprise areas, schools, and public gathering places are in close proximity and easily accessible to area residents.
Objective 1.1-2	Implement walkable systems via improved sidewalks and trails that connect residential areas with enterprise areas, schools, public gathering areas, and other uses outside of residential developments.
Objective 1.1-3	Align and design walkways, roads, and other transportation systems in ways that encourage multi-use by foot, bicycle, and horseback.
Objective 1.1-4	Separate walkways, pathways, and access roads from collector, arterial, and other high-speed traffic routes.
Objective 1.1-5	Relocate a substantial portion of vehicular parking away from C Street and toward centralized parking areas.
Objective 1.1-6	Enhance vehicle and pedestrian visibility at key road crossings on C Street.
Objective 1.1-7	Develop walkways and stairways in addition to visual and other physical separations between pedestrian and vehicle ways on east-west orientated streets near C Street.
Objective 1.1-8	Consider revisions to the intersections of Taylor, Union, and C Streets for safer pedestrian and vehicle crossing.
Objective 1.1-9	Design streets around parks, schools, and other public gathering places to encourage pedestrian mobility, particularly in areas situated away from more trafficked vehicle ways (e.g. local access roads, minor arterials).

Policy	
Policy 1.2	Provide rest areas in key places around pedestrian corridors and parking areas.
Objectives	
Objective 1.2-1	Add sitting benches and tables along the C Street boardwalk.
Objective 1.2-2	Add sitting benches between remote vehicle parking areas and C Street, and in parking lots.
Objective 1.2-3	Secure funds to develop “pocket-parks” on vacant parcels along C Street in downtown Virginia City.
Objective 1.2-4	Assess the feasibility of converting several C Street parking spaces into “parklets” after sufficient vehicular parking and downtown transportation is completed at the Virginia City Freight Depot multi-modal transit center.
Objective 1.2-5	Add sitting benches and water stations along established bicycle/pedestrian trails.

Policy	
Policy 1.3	Locate high-speed, collector, and arterial routes along the edges of developments.

Policy	
Policy 1.4	Implement traffic-calming design and devices to slow traffic where close connection between vehicle and non-motorized ways exist.

Policy	
Policy 1.5	Maintain and expand existing and future alternative transportation systems.
Objectives	
Objective 1.5-1	Reserve necessary property, right-of-way, and easements in new planned unit developments to support existing and future pedestrian, bicycle, bus, rail, and other transportation systems.
Objective 1.5-2	Align rights-of-way and easements for transit systems with existing transit system rights-of-way, easements, and planned corridors.
Objective 1.5-3	Connect bicycle ways in Mustang, McCarran, and Painted Rock to the Tahoe-Pyramid Trail alignment, and by coordinating with the Lockwood community in its desire for the bikeway alignment in the area. Coordination with the Lockwood community will be crucial in identifying desired bikeway connections throughout the Lockwood area.

Objective 1.5-4 Collaborate with Union Pacific Railroad, Washoe County Regional Transportation Commission, Tahoe-Reno Industrial Center, and other agencies and entities to assess and consider the feasibility of light-rail commuter systems utilizing new and existing infrastructure along the Truckee River and Interstate 80 corridor.

Goal 2: Connect communities in the county.

Policy	
Policy 2.1	Evaluate alternative means by which to connect the county.
Objectives	
Objective 2.1-1	Assess the benefits and adverse impacts (including traffic, safety, noise, light pollution, wildland fire risk, and attraction of other undesirable development) that a north-south and east-west transportation interconnection may have on the Highlands and Lockwood communities and allowed uses in the Lagomarsino planning area.
Objective 2.1-2	Coordinate with Tahoe-Pyramid Bikeway to develop multi-use paths along the north end of the county that supports each of the local communities’ needs, while also protecting the expressed interests and needs of Lockwood residents.

Goal 3: Enhance public safety.

Policy	
Policy 3.1	Coordinate with the Storey County Fire Protection District, Storey County Sherriff’s Office, Storey County School District, Storey County Health and Community Services Department, and local social support groups to help ensure that transportation infrastructure supports mobility and maximum practical public safety in accordance with their needs.
Objectives	
Objective 3.1-1	Host annual field tours with fire, school, law enforcement, and public services departments and agencies and to assess conditions and identify needs.

Policy	
Policy 3.2	Coordinate with the Nevada Department of Transportation to correct identified safety issues on Interstate 80 interchanges, especially at the Lockwood interchange.

Policy	
Policy 3.3	Require area land developers to develop necessary transportation infrastructure that meets the needs of new developments.

Policy	
Policy 3.4	Align future arterial routes (e.g., north-south or east-west connectors) in and around the Lockwood, Highlands, and Lagomarsino areas that are aligned with and connected to Mustang Road and the Mustang-Interstate 80 interchange, and away from Canyon Way and the Lockwood-Interstate 80 interchange.

Goal 4: Develop a partial financial plan for transportation infrastructure, growth, and maintenance.

Policy	
Policy 4.1	Reconcile countywide policies with expected revenue and expenses to maintain and potentially expand and enhance infrastructure as needed.

Policy	
Policy 4.2	Work with local and state agencies, as well as the Tahoe-Reno Industrial Center, to develop future maintenance and development agreements focused on creating improved infrastructure.

Goal 5: Enhance and diversify vehicular and multi-modal transportation in the Comstock area.

Policy	
Policy 5.1	Continue development patterns that provide for a walkable community.
Objectives	
Objective 5.1-1	Encourage historically dense, mixed-use commercial and residential development in the core areas of Gold Hill, Virginia City, and the Divide.

Policy	
Policy 5.2	Acquire necessary property, rights-of-way, and easements to develop vehicular parking and multi-modal transportation systems.
Objectives	
Objective 5.2-1	Inventory vacant land adjacent to the Virginia City downtown area that may facilitate centralized vehicular parking and transit systems.
Objective 5.2-2	Consider opportunities to purchase appropriate vacant land to facilitate centralized vehicular parking and transit systems.

Policy	
Policy 5.3	Improve vehicular parking and multi-modal transportation systems.
Objectives	
Objective 5.3-1	Repurpose the historic Virginia City Freight Depot to facilitate train boarding and disembarking, or to develop other modal transportation systems that serve both the freight depot and visitors to other parts of Virginia City.
Objective 5.3-2	Repurpose parcels between the Virginia City Freight Depot and Union Street to facilitate vehicular parking, rail service, bus service, and multi-modal transportation support systems.
Objective 5.3-3	Widen and improve B-, D-, and E Street to increase vehicular parking and circulation capacity.

Policy	
Policy 5.4	Develop alternative transit systems between centralized transit hubs and the downtown area of Virginia City.
Objectives	
Objective 5.4-1	Develop additional transit stops at appropriate intervals to facilitate transit to and from C Street.
Objective 5.4-2	Develop inclinator between C Street and the Virginia City Freight Depot and other centralized transit staging areas.

Policy	
Policy 5.5	Support the safe and efficient movement of goods and people throughout the Comstock area.
Objectives	
Objective 5.5-1	Develop sidewalks and/or boardwalks and repairing curbs and gutters along “C” Street, and otherwise developing stronger pedestrian infrastructure, including safe neighborhood-to-school and community facilities infrastructure.
Objective 5.5-2	Improve street lighting and visibility at key roadway and pedestrian intersections.
Policy	
Policy 5.6	Develop cul-de-sacs or other vehicle turnarounds at dead-end streets.
Policy	
Policy 5.7	Coordinate with private property owners, the U.S. Bureau of Land Management and other entities to correct encroaching right-of-way conflicts.
Policy	
Policy 5.8	Improve the quality of the pavement or gravel surfacing of existing unimproved platted streets where residential and other development is occurring.
Policy	
Policy 5.9	Widen local streets where two-way traffic is challenging or impossible.
Policy	
Policy 5.10	Use Nevada Department of Transportation rural transit planning funds to develop a comprehensive public transit plan that supports local connectivity and tourism needs.
Policy	
Policy 5.11	Support Road Safety Audits and implementing suggestions on State Route 341, State Route 342, and Six Mile Canyon Road.

Policy	
Policy 5.12	Evaluate the benefits and limitations of alternative vehicle transportation circulation on C Street and in the downtown Virginia City area, including limited and no motor vehicle access on C Street, one-way traffic patterns, and bypass “loops” around C Street. The purpose of any route should focus on enhancing pedestrian walkability and local vehicle parking.

Policy	
Policy 5.13	Discourage the installation of a lighted traffic signal, and instead with the agency of jurisdiction plan for and develop a round-about, or other such traffic management device that does not detract from the historic integrity of the adjacent historic Fourth Ward School. Major improvements to this intersection should include landscaping enhancing the “south gateway” to Virginia City as supported by this master plan (see Chapter 3 – Land Use) and should be designed to accommodate safe tourist-pedestrian access to the immediate surrounding area. This policy is of particular importance at the intersections of State Route 341 Truck Route and State Route 342 adjacent to the historic Fourth Ward School museum.

Policy	
Policy 5.14	Secure local control from the Nevada Department of Transportation portions of State Route 341 (C Street) within Virginia City’s downtown area.

Objectives	
Objective 5.14-1	Work with the Nevada Department of Transportation to convey to Storey County State Route 341 right-of-way between north and south intersecting “B” Street.
Objective 5.14-2	Do not accept conveyance of portions of State Route 341 to Storey County until curbs, gutters, drainages, and pavement are improved to Storey County standards, or until the state provides the county sufficient funds for necessary repairs and improvements.

Goal 6: Support the continued orderly development at McCarran and the Tahoe- Reno Industrial Center.

Policy	
Policy 6.1	Actively monitor traffic and congestion levels in and around the Tahoe-Reno Industrial Center.

Policy	
Policy 6.2	Apply for grants and other awards for a planning study in McCarran for anticipated long- term and full buildout.

Policy	
Policy 6.3	Promote and coordinate with regional entities to enhance van- pool and other shared commuter systems at McCarran.

Policy	
Policy 6.4	Plan for new infrastructure connectivity between McCarran and new planned unit developments at Painted Rock.

Policy	
Policy 6.5	Coordinate with the Washoe County Regional Transportation Commission; Lyon and Washoe Counties; the City of Sparks; and the Nevada Department of Transportation to model future transportation issues and develop proactive strategies to mitigate traffic impacts in and around McCarran.

Policy	
Policy 6.6	Encourage the Tahoe-Reno Industrial Center to examine pedestrian infrastructure, especially when models and observations confirm demand.

CHAPTER 9

Public Services & Facilities



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9.1 Chapter Introduction

Planning for public services and facilities is necessary for orderly and efficient development and services provided by Storey County. This chapter describes public services and facilities provided by the County and other entities in the county, and areas where improvements or additional planning may be needed. Specific goals, policies, and objectives are provided at the end of this chapter.

9.2 Services Provided

A wide range of public services and facilities are provided in Storey County including:

- Roads, transportation, and pedestrian ways
- Water and wastewater systems
- Gas distribution systems
- Schools
- Library services
- Primary healthcare
- Neighborhood parks
- Regional parks and special use facilities
- County staffing, services, and facilities
- Telecommunications facilities
- Flood mitigation
- Truckee-Carson Irrigation District Canal (Painted Rock) monitoring
- Public safety services
- Solid waste management

Most of these services are provided by Storey County, the Storey County Fire Protection District, and the Storey County School District. General improvement districts, homeowners' associations, and other organizations (including non-profit agencies such as Community Chest, Inc.) also provide related facilities and services where needed in the county. Several County departments and other agencies have developed planning and implementation documents to help facilitate the efficient and effective use of all services.

9.2.1 Municipal and Private Facilities and Services

9.2.1.1 Water Systems

Municipal water and wastewater services are provided in Gold Hill, Virginia City, Lockwood, and McCarran areas. The Storey County Water System is the service provider for Gold Hill, Virginia City, and Silver City (Lyon County), while the Canyon General Improvement District and the Tahoe-Reno Industrial Center General Improvement District provide water service to Lockwood and McCarran, respectively. Storey County's remaining communities are self-served by private wells and septic systems. The availability of high-quality water is vital to the sustainable growth of Storey County. The Storey County Water System and Storey County Sewer General Improvement District are committed to protecting the public health, safety, and welfare of residents, businesses, and visitors of Virginia City, Gold Hill, and Silver City (Lyon County) by providing high-quality drinking water and wastewater treatment, as well as providing for future economic growth through progressive planning, the efficient use of technology, promoting education about water conservation and quality, and monitoring for the safety of public health and the environment.

The following sections discuss attributes and challenges of each system, and provide the number of customers, annual usage, capacity, and total annual water usage in each of the existing local water systems.

Storey County Water System (Virginia City, Gold Hill, and Silver City (Lyon County))

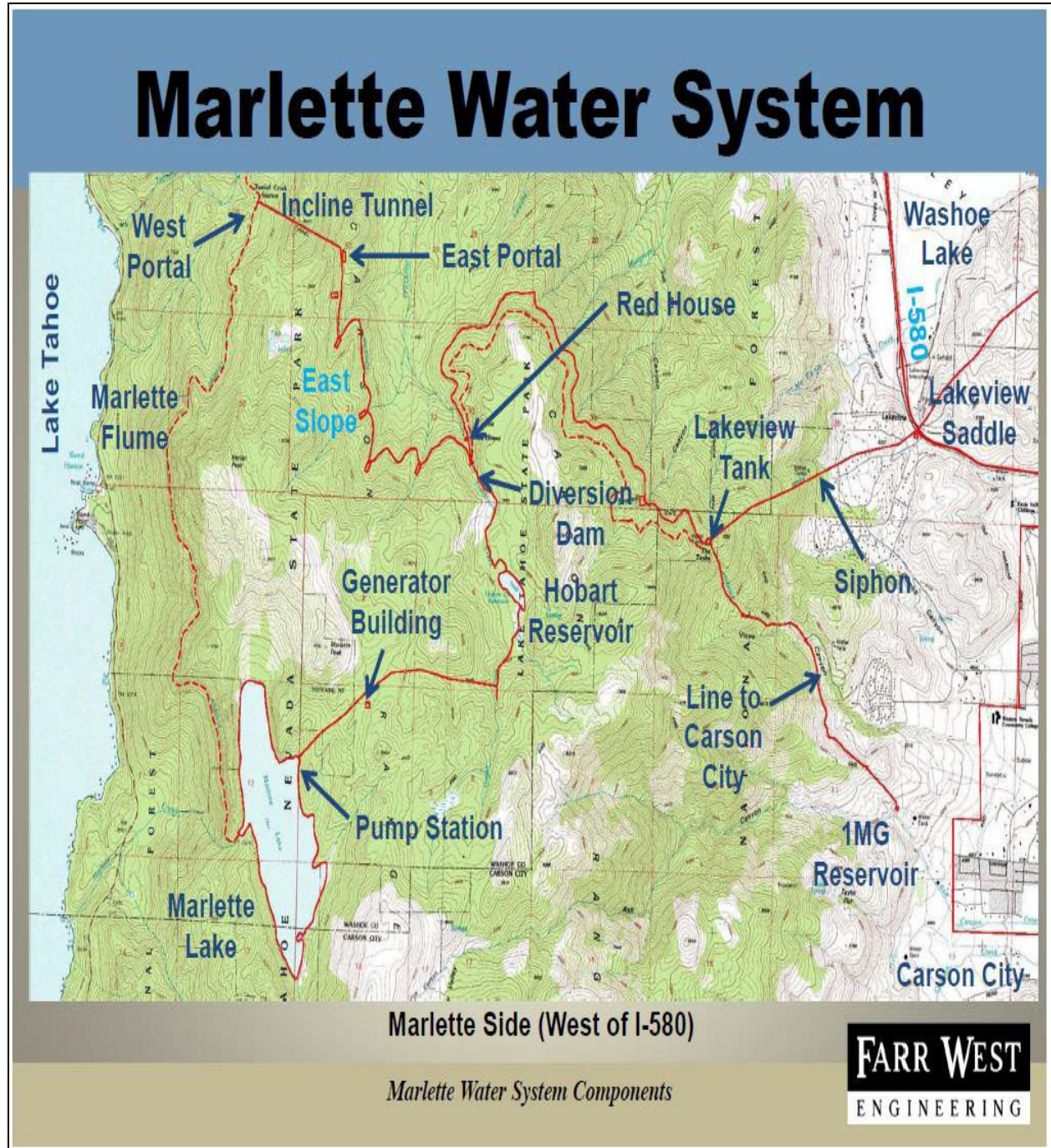
Pursuant to Nevada Revised Statute 331.160, the Nevada State Public Works Division is responsible for the supervision and administration of the State-run half of the water transmission system. This includes the collection and transmission of water to Carson City, Virginia City, and Gold Hill in Storey County, and Silver City in Lyon County. The Storey County Water System, operated and funded by Storey County pursuant to Nevada Revised Statute 354 (enterprise special revenue funds), is the municipal water service provider for Virginia City, Gold Hill, and Silver City (Lyon County). The utility obtains bulk raw water from the Marlette Hobart Water System (Marlette System), which is owned and managed by the State of Nevada, and the Storey County Water System treats and distributes the water throughout its area of jurisdiction.

The Marlette System operates similarly as it did over a century ago. Water rights for the Marlette System are addressed by the Franktown Creek Decree (1960). Raw water is collected from Marlette Lake, Hobart Reservoir, Franktown Creek and its nearby streams and natural drainages along the east slope of the Carson Range and is conveyed to the Virginia Range east of Washoe Valley through a seven-mile inverted siphon (Figure 9.2-1 and 9.2-2). The County's ownership of the system begins where the siphon crosses under Interstate 580 at Lakeview, north of Carson City. The siphon runs through the south side of Washoe Valley to near Ophir Summit on the Virginia Range. Water is stored at Five Mile Reservoir and several raw water tanks before it reaches the Storey County Water System treatment plant at the Divide near Gold Hill.



Source: (left) Storey County Planning Department, 2015; (right) Carson Water Subconservancy District, 2014

Figure 9.2-1: Marlette Lake (left) and Hobart Reservoir (right) - two of the three principal sources of water feeding the Marlette-Hobart Water System. Remaining water, and sometimes a majority of water serving the system comes from Franktown Creek and its nearby springs along the east slope of the Carson Range.



Source: Farr West Engineering 2016

Figure 9.2-2: Marlette-Hobart Water System

Aboveground water storage tanks consist of two raw water tanks: a 500,000-gallon capacity tank at Five-Mile Reservoir (Five-Mile Tank), and a 1.4-million-gallon capacity tank adjacent to the water treatment plant. There are also five water tanks through the distribution system. Capacities of water storage facilities, according to the 2023 Storey County Water Resource Plan, are listed in Table 9.2-1 (also see Appendix B).

Table 9.2-1: Storey County Water System Storage Facilities

Tank	Raw/Potable	Operational Capacity (gallons)
Five Mile Reservoir	Raw	5,600,000
Five Mile Tank	Raw	500,000
Bullion Tank	Raw	1,400,000
Total Raw Water Storage =		7,500,000
Hillside Tank No. 1	Potable	500,000
Hillside Tank No. 2	Potable	500,000
Taylor Tank	Potable	200,000
Divide Tank	Potable	115,000
Silver City Tank	Potable	160,000
Total Potable Water Storage =		1,475,000
Divide Reservoir	Potable	1,552,000

Note: The Divide Reservoir is at the south end of Virginia City. The reservoir is filled with potable water; however, it is currently only used for wildland fire protection and does not contribute to system storage volumes. Source: Water Resource Plan (2023)

The Storey County Water System contracts with the State of Nevada every 15 years to determine raw water allocations, costs, and other considerations that will apply to the local water purveyor (contract between the State of Nevada and Storey County to Supply Raw Water from the Marlette Water System, 2017). The existing purchase agreement permits the Storey County Water System to purchase up to 448 acre-feet of raw water from the Marlette System in 2015. The agreement sets forth incremental annual allotment increases to the purveyor each year until 2024, at which time the allotment is capped at 519 acre-feet. A new water right purchase agreement between Storey County and the Marlette System is currently being discussed to extend beyond 2024 for an additional ten-year period.

Parts of the original 1870s water system have been damaged or fallen into disrepair over the past century. However, significant rehabilitation and improvements were made to the Marlette System by the State and the Storey County Water System over the past decade. In 2013 and 2014, Storey County

installed automated air-release valves along the east siphon and pipeline, and rehabilitated and added significant water holding capacity to Five Mile Reservoir and Divide Reservoir. Storey County is actively working on new environmental studies and engineering plans focused on replacing sections of pipeline from Lakeview Saddle in Washoe Valley to 3.3 miles southwest of Five Mile Reservoir to the top of the siphon (high point on east side of the inverted siphon).

Treated potable water is distributed by the Storey County Water System to residential and commercial users throughout each Comstock community. Water usage is metered, and all users are billed a base rate plus amounts exceeding that rate. According to the 2023 Storey County Water Resource Plan (Appendix B), the County currently serves approximately 803 metered customers. The majority of customers (666) are within Virginia City, 51 within Gold Hill, and 86 are within Silver City. The County serves approximately 207 commercial customers and the remaining 596 are residential. The 2023 Water Resource Plan and other infrastructure planning documents have assessed current and future system needs and determined that expansions, repairs, and the purchase of additional water rights will be needed in the future. Table 9.3-2 lists anticipated additional demand that will be needed in the future assuming full buildout of the communities within the county, illustrating the need for additional water system investment.

Storey County, Carson City, and the State of Nevada are currently negotiating a successor agreement to the 2002 Marlette Lake Water Agreement to determine the amount and cost of raw water provided to each jurisdiction from the State of Nevada Marlette Water System over the next 15-year period. Additionally, the Truckee Meadows Water Authority is engaged in these negotiations with regard to the potential for “surplus water” resources that may be available meeting their needs while remaining in conformance with the 1960 Franktown Decree.

Table 9.2-2: 2023 Water Resources Plan – Area Water Demands

Area	Existing Demand (Acre-Feet Annually)	Additional Demand (Acre-Feet Annually) ¹	Build-Out Demand (Acre-Feet Annually)
Comstock	221	456 ²	677 ²
Highlands	176	182	358
Mark Twain	100	4,875	4,975
American Flat	4.5	291	296
Total	502	5,804	6,306

Source: Water Resource Plan (2023)

¹ Includes 105.3 AFA for Silver City

² Includes 105.3 AFA for Silver City

In 2023, the Storey County Manager, Comptroller, and Business Development department worked with RCG Economics and other economic consultants to prepare the report: *Storey County Regional Impacts: An Overview of Economic Contributions, Abatements, Responsibilities, and Community Planning*. According to the 2023 report, about \$186 million is needed to repair and expand the water system serving Virginia City, Gold Hill, and Silver City (Lyon County), including:

- \$27 million current and future projected buildout requirements
- \$127 million Virginia City Highlands expansion
- \$28 million Mark Twain Estates expansion
- \$3.5 million American Flat expansion

Additional background and data can be found in the 2023 Water Resources Plan (Appendix B) and Chapter 10 – Water & Natural Resources in this Master Plan.

Lockwood and Mustang

The Canyon General Improvement District is the water service provider for Lockwood and the Rainbow Bend Development. The district owns and maintains the municipal water system which supplies water to the Lockwood community via three drilled wells, two water treatment facilities, and storage tanks. The purveyor also has jurisdiction throughout the adjacent Mustang area; however, there is no general improvement district water infrastructure in place for that area at this time. Expansion of infrastructure and service to Mustang is likely to occur in the near future as commercial and industrial development occurs in that area.

Water provided by the Canyon General Improvement District is metered and each user is billed a base rate plus tiered amounts exceeding that rate. The district has water rights permits that allow Canyon General Improvement District to use, but not exceed, a total of approximately 363 acre-feet of water annually. Canyon General Improvement District currently has 502 residential connections and 23 commercial connections, serving approximately 1,325 people and 14 commercial customers (2024 Canyon General Improvement District Water Conservation Plan).

Per the 2024 Water Conservation Plan for Canyon General Improvement District: “the total number of customers in the Canyon General Improvement District remains fairly constant. New construction in the service area has slowed dramatically, and the district is almost at build-out. No new demand forecast is needed at this time.” Instead, the General Improvement District is focusing on water conservation going forward and “has made great strides toward the goal of 5% reduction by the year 2029 (savings of 3,000,000 gallons per year).” Table 9.3-3 lists the Canyon General users and water demand.

Table 9.2-3: Canyon General Improvement District Users and Water Demand

Users	Active Customers	Annual Usage	Capacity
Active Users	502 Residential 14 Commercial	51,747,875 gallons	850,000,000 gallons minimum
Parcel Count			
Residential parcels		502 parcels	
Non-residential/commercial parcels		23 parcels	
TOTAL		525 parcels	

McCarran

The Tahoe-Reno Industrial Center-General Improvement District is the water service provider for McCarran and the Tahoe-Reno Industrial Center. The district owns and maintains the water system which includes seven wells, six million gallons of storage tank capacity, and a water distribution and metering system that covers the Tahoe-Reno Industrial Center and the developed part of McCarran.

Water provided by the district is metered and each user is billed a base rate plus tiered amounts exceeding that rate. The district has rights to approximately 5,300 acre-feet of groundwater to serve its area of jurisdiction. The system also uses treated secondary effluent (10,000 acre-feet process water system) with 1,800 acre-feet of allotted surface water from the Truckee River for industrial applications, landscape irrigation, and other non-potable uses.

The period of potential build-out of the district water system is difficult to estimate because the service area is reserved exclusively for build-to-suit industrial and commercial users, each with different and unpredictable water needs. However, the district carefully manages its issuance of will-serve letters according to its allotted water rights and estimated demands of prospective users.

The effluent pipeline constructed between the Truckee Meadows Water Reclamation Facility and the Tahoe-Reno Industrial Center-General Improvement District was built to transmit up to 4,000 acre-feet of effluent wastewater from the cities of Reno and Sparks to the Tahoe-Reno Industrial Center. This helped to improve the quality of the Truckee River water by diverting effluent high-nitrate water away from the Truckee River and into industrial uses. Furthermore, the pipeline helped return approximately 1,500 acre-feet of water from the Tahoe-Reno Industrial Center to the Truckee River and Pyramid Lake through a Return Flow Management Agreement between the parties of Truckee Meadows Water Authority, Truckee Meadows Water Reclamation Facility, Tahoe Reno Industrial Center General Improvement District and Master developer. Table 9.3-4 lists the Tahoe-Reno Industrial Center-General Improvement District uses and demand.

Table 9.2-4 Tahoe-Reno Industrial Center-General Improvement District Users and Water Demand

Users	Customers	Annual Usage	Maximum Daily Demand Remaining Capacity	Average Daily Demand Remaining Capacity
Active Users	256	722,000,000 gallons	9,913,128 gallons	9,391,015 gallons
Total build-out	Variable	Variable	Variable	Variable

Source: TRI General Improvement District, 2015

Note: Numbers shown are for potable water systems. Non-potable water systems that will serve industrial processing are under construction. Total build-out and capacity are dependent on future economic and other expansion in a build-to-suit environment.

Mark Twain and Virginia City Highlands

Water availability is the foremost concern in the Mark Twain Estates and Virginia City Highlands in the Mark Twain area. Residents in these communities obtain water via private domestic wells. Many of these wells often produce unreliable or inadequate flows or iron-rich water requiring costly filtration treatment. Housing development in the Virginia City Highlands is currently at one-third of the maximum capacity and residents have expressed concerns with continued development and the use of limited groundwater resources. Communication with residents has indicated that deepening or replacing domestic wells for some residents may be financially unrealistic and these residents have opted to contract with private water-services for the delivery of potable water. A hydrological study conducted by the United States Geological Survey is currently ongoing. Findings from the ongoing study, and more goals, policies, and objectives related to water supply and quality, are discussed in greater detail in Chapter 10 – Water & Natural Resources. In response to water supply challenges, the County has begun to plan for future water provision to areas like the Highlands and Mark Twain. Anticipated future demand at full buildout (based on the 2023 Water Resource Plan, included in the master plan as Appendix B) is included in Table 9.3-2. These include \$127 million for a Virginia City Highlands expansion and \$28 million for a Mark Twain Estates expansion.

Wastewater Systems

Municipal wastewater services are provided in Gold Hill, Virginia City, Lockwood, and McCarran. The Storey County Water System provides these services to Gold Hill and Virginia City; while the Canyon General Improvement District and the Tahoe-Reno Industrial Center-General Improvement District serve Lockwood and McCarran, respectively. Storey County's remaining communities are self-served by private wells and private septic systems.

The outlook for municipal wastewater capacity in the future is positive. In 2015, the U.S. Department of Agriculture Rural Development program awarded the Storey County Water System approximately \$20 million toward the planned comprehensive rehabilitation of the Gold Hill and Virginia City wastewater treatment and collection system. For Lockwood and McCarran, the two general improvement district wastewater systems have significant capacity to meet existing and anticipated future demands. The TRI-General Improvement District continues to expand its capacity as the district grows and welcomes new businesses and employees to the area.

Septic systems throughout the county appear to adequately and safely serve the communities in which they are located. However, the County should continue to monitor groundwater quality data provided to NDEP in order to prepare for corrective action. Corrective action alternatives considered include engineered municipal septic systems or the development of community sewer treatment systems to which users in affected areas would be required to connect.

Table 9.2-5 lists the Users and Wastewater Demand for the areas.

Table 9.2-5 Users and Wastewater Demand

Virginia City and Gold Hill (Virginia City Water System)			
<i>Users</i>	<i>Customers</i>	<i>Annual Usage</i>	<i>Capacity (year)</i>
Active Users	717	26,795,400 gallons	73,000,000 gallons
Total build-out	Variable	Variable	73,000,000 gallons
Lockwood (Canyon General Improvement District)			
<i>Users</i>	<i>Customers</i>	<i>Annual Usage</i>	<i>Capacity (year)</i>
Active Users	525	20,000,000 gallons	35,000,000 gallons*
Total build-out	Variable	Variable	40,000,000 gallons*
McCarran (Tahoe-Reno Industrial Center-General Improvement District)			
<i>Users</i>	<i>Customers</i>	<i>Annual Usage</i>	<i>Capacity (year)</i>
Active Users	90	127,750,000 gallons	438,000,000 gallons
Total build-out**	350	438,000,000 gallons	438,000,000 gallons

Sources: Storey County Public Works, 2015; Canyon General Improvement District, 2015; Tahoe-Reno Industrial Center General Improvement District, 2015

*The Canyon General Improvement District system has a capacity of 35,000,000 gallons with a total expansion build-out capacity of 40,000,000 gallons.

**Variable conditions subject to changes in a build-to-suit environment.

9.2.2 Gas Transmission and Distribution Systems

Residents and businesses in much of the county depend on local vendors for propane tanks and natural gas services. Building natural gas transmission and distribution infrastructure to Virginia City and the Highlands is estimated to exceed \$250 million. The county is exploring grants and private-public partnership opportunities for potential creation of this system. McCarran is the only area in Storey County with a public utility gas system, which is provided by NV Energy via the Tuscarora gas transmission line.

NV Energy recently extended a natural gas transmission line to Lockwood and connected it to the northern half of the community, the Rainbow Bend residential community, as well as several commercial users in the immediate vicinity. A separate system is used to serve Lockwood residents in the Lockwood Community Corporation mobile home park, immediately south of Rainbow Bend. This system distributes liquid propane gas from 12 local tanks maintained by a private vendor under

contract with the Lockwood Community Corporation. The southern half of Lockwood does not have sufficient local gas distribution infrastructure to safely connect into the new NV Energy natural gas transmission line. Approximately \$2 million is needed to develop infrastructure to connect this line to and distribute natural gas throughout the Lockwood Community Corporation. Residents and businesses in Virginia City, Gold Hill, Highlands, Mark Twain, and other areas purchase truck-delivered propane, heating oil, and other fuels from area vendors.

Residents and businesses in the county have asked County officials to study the costs, benefits, and other factors determining the feasibility of building infrastructure throughout the county from which natural gas regulated by the Public Utilities Commission may be transmitted and distributed. A preliminary study conducted by the County in 2015 found the cost of installing needed transmission to Virginia City, Gold Hill and Silver City may cause the price of the utility to exceed the current cost of truck-delivered private-vendor propane gas. However, the study was not exhaustive, and it did not include the Highlands, Mark Twain, or other communities outside of Virginia City, Gold Hill, and Silver City. The potential for future natural gas transmission and distribution, especially in the Mark Twain Estates which is in close proximity to the Southwest Gas distribution system in Dayton, should be considered.

9.2.3 Electric Utilities

9.2.3.1 Electric Transmission and Distribution Systems

NV Energy is the sole electric utility provider in Storey County and much of northern Nevada. NV Energy serves a 45,592-square-mile service territory that stretches north to south from Elko to Laughlin and provides a wide-range of energy services and products serving more than 2.4 million citizens and state tourist populations exceeding 40 million annually.

The company provides electric service to much of northern Nevada and California from its Frank A. Tracy Generating Station complex at McCarran. This generating station produces up to 885 Megawatts of power – enough electricity to serve more than a half million households – and it uses multi-technology, clean-burning natural gas to run its power generators. Figure 9.2-3 shows the generating station complex at McCarran, and Figure 9.2.4 maps other facilities around the state.



Figure 9.2-3: NV Energy Generating Station Complex at McCarran (Source: NV Energy, 2016)

Generating Resources

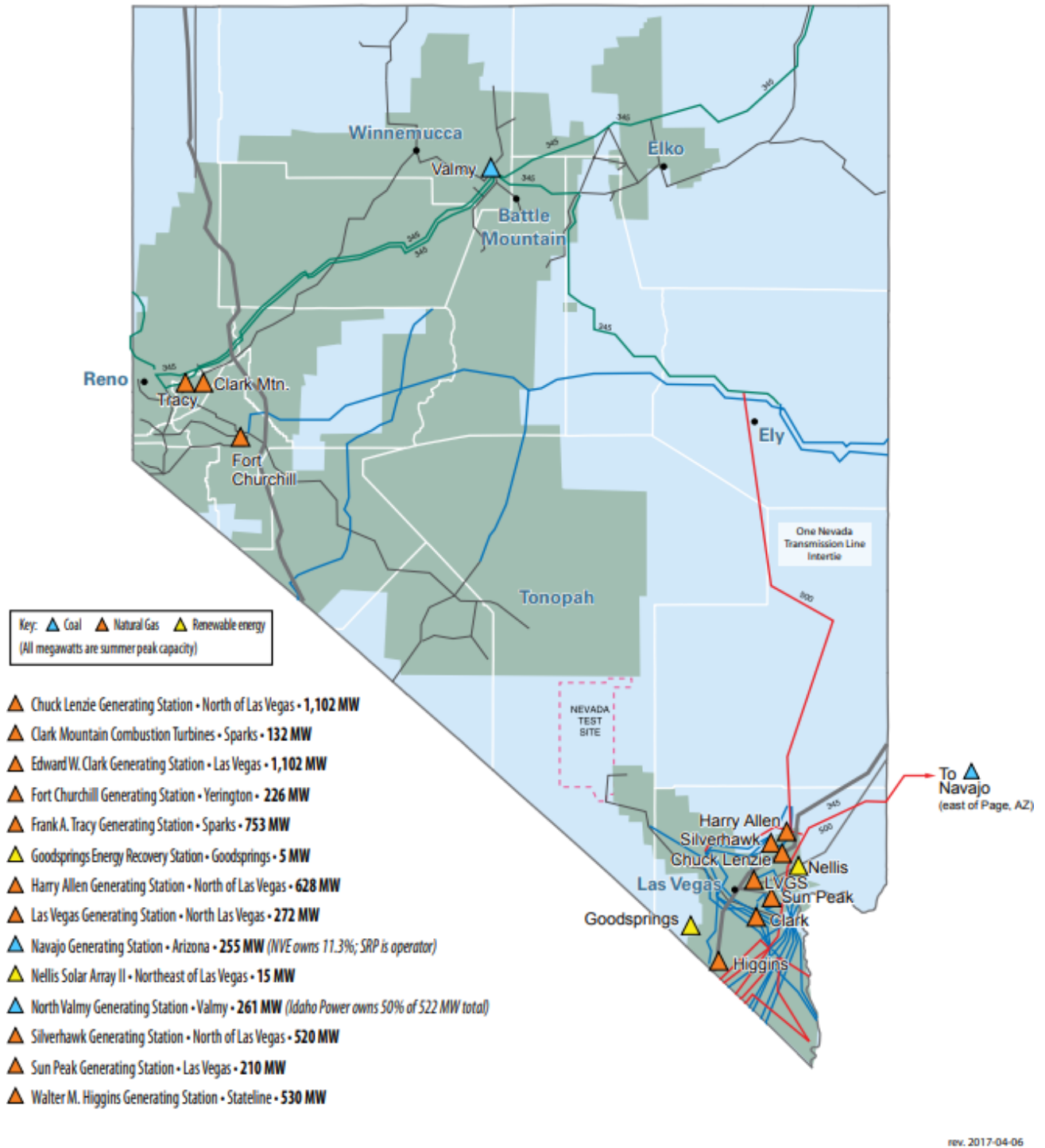
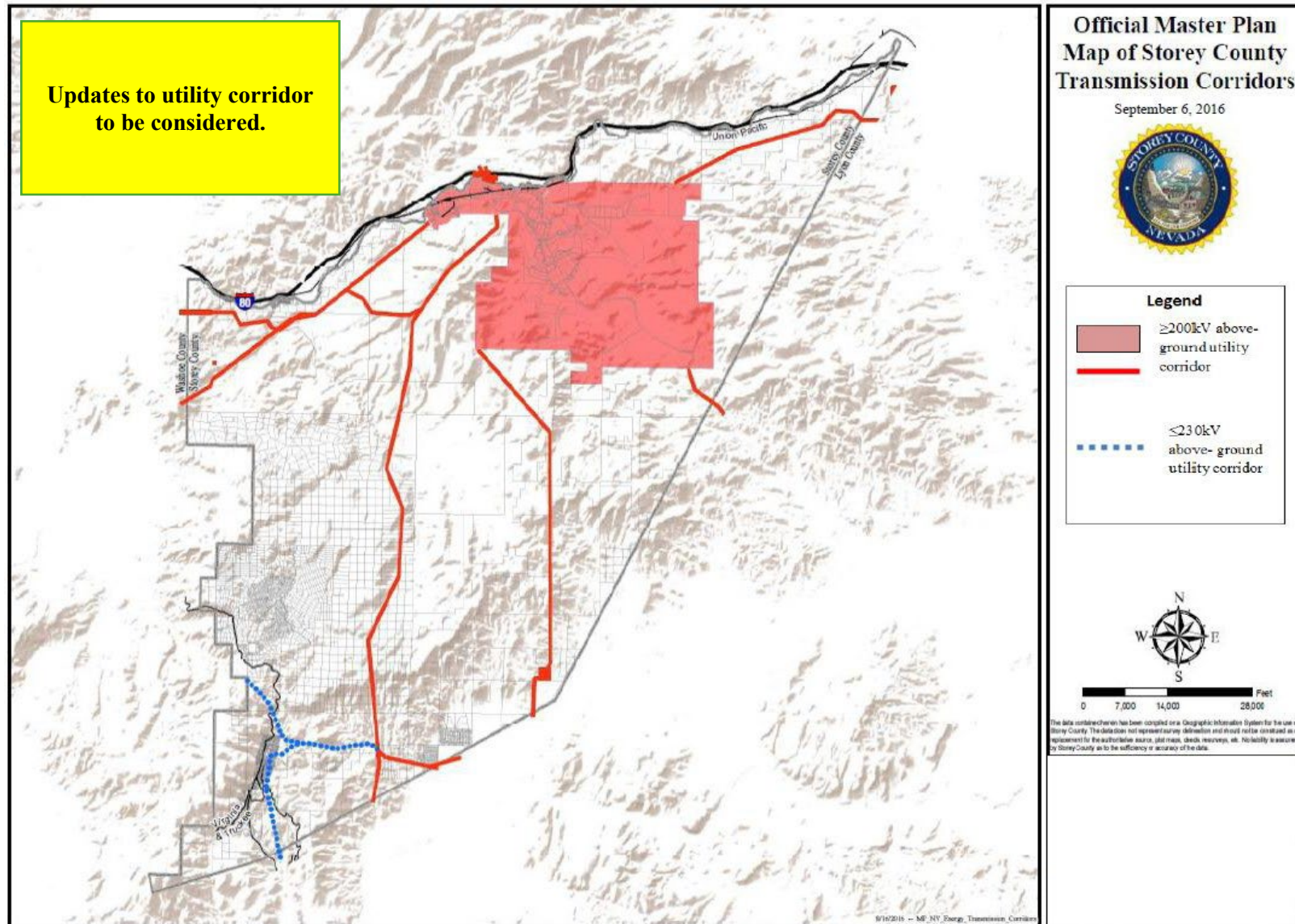


Figure 9.2-4: NV Energy Statewide Generating Facilities (Source: NV Energy)

9.2.3.2 Aboveground Utility Corridors

NRS 278.0103 defines an “aboveground utility” as an “electric transmission line which is designed to operate at 200 kilovolts or more and which has been approved for construction after October 1, 1991, by the state and federal government or a governing body.” NRS 278.165 requires each county to adopt an aboveground utility plan that must: “(2)(a) provide a process for the designation of corridors for the construction of above-ground utility projects; (b) be consistent with plans prepared by the Nevada State Office of Energy; (c) ensure continuity of transmission corridors, are consistent with above-ground utility plans of adjacent jurisdictions; and (d) be consistent with the Bureau of Land Management’s resource management plan.

Storey County adopts, as part of this master plan, the maps on file with the Nevada State Office of Energy and the U.S. Bureau of Land Management depicting corridors for aboveground electric transmission lines as presently depicted and as may be amended. Figure 9.2-5 illustrates both the Nevada Office of Energy and the U.S. Bureau of Land Management various recognized corridors, but those listed as over 200 kilovolts will need to be verified through the Office of Energy, the U.S. Bureau of Land Management, and the Storey County Planning Department. Transmission lines under 200 kilovolts, or not recognized by the Nevada Office of Energy or the U.S. Bureau of Land Management, as applicable, are required to follow the county special use permit process in Storey County Code Title 17 Zoning. The width of the corridor may vary across U.S. Bureau of Land Management districts or regional management plans so verification of the easement width may be required. As required by NRS Statute 278.160, and upon request from a developer of an aboveground utility project, amendments may be proposed to create, amend, or delete utility corridors as designated in this section.



Note: This transmission corridor map may be subject to change as Storey County works with utility providers to map appropriate corridors throughout the County.

Figure 9.2-5: Aboveground Utility Corridors in Storey County

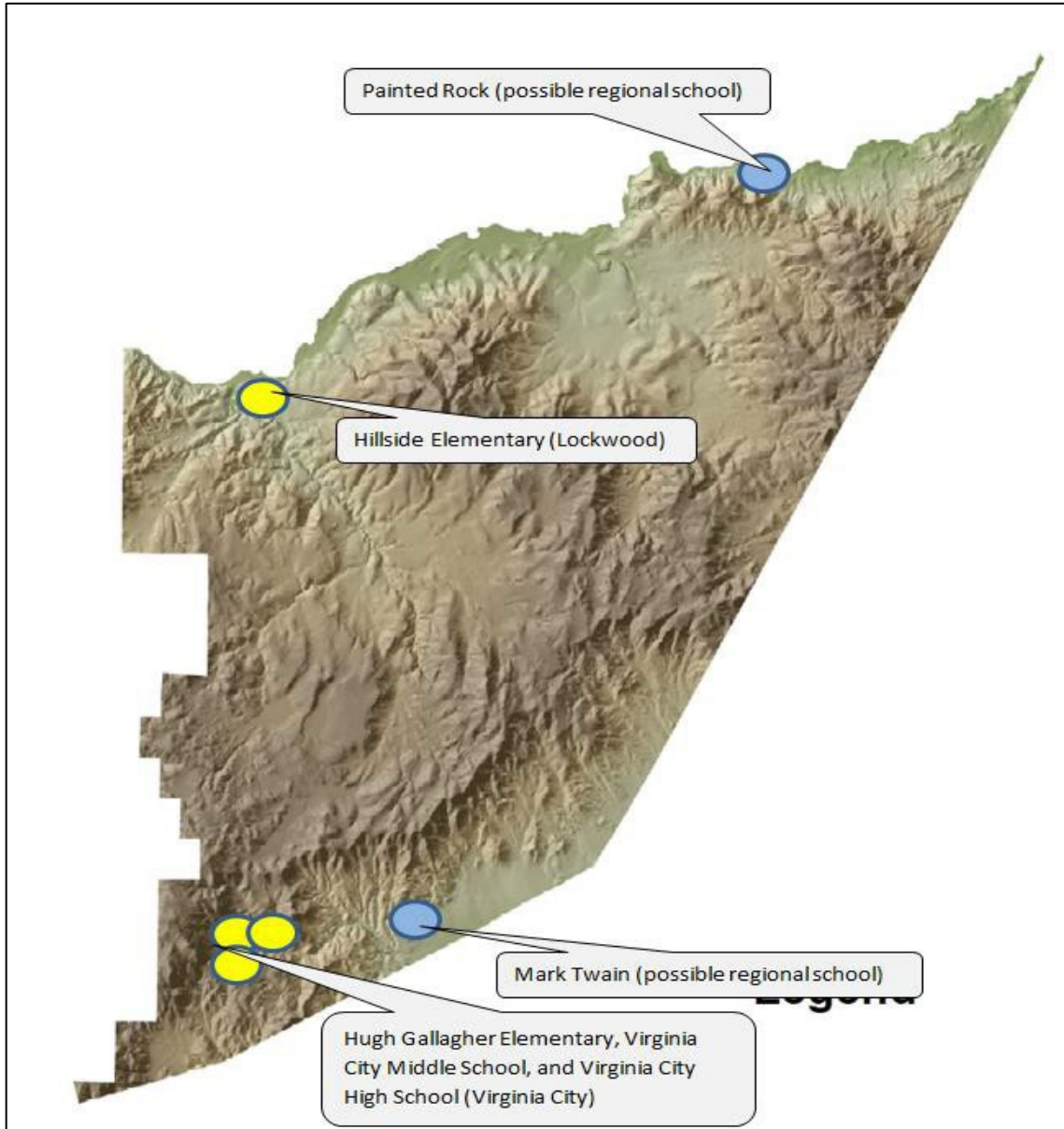
9.2.4 Schools

The Storey County School District provides kindergarten through 12th grade education services throughout all of Storey County. Figure 9.2-6 depicts locations of existing and potential schools in the county. There are currently no private or charter schools in the county. Primary grade students in Gold Hill, Virginia City, the Highlands, and Mark Twain attend Hugh Gallagher Elementary in Virginia City, and primary grade students in the county's north communities, including Lockwood and Painted Rock, attend Hillside Elementary in Lockwood. All secondary grade students attend Virginia City Middle School and Virginia City High School, both located in Virginia City.

The Storey County School District is proposing to relocate Virginia City's middle school and elementary school to create one school district campus adjacent to the existing high school. This will allow for implementation of safety measures and for shared operational features. After the new school campus is constructed, the existing middle and elementary school properties may be deeded to Storey County to be potentially used for other public service needs or redeveloped. Storey County should work closely with the Storey County School District to ensure the new campus concept provides the greatest benefit to the community and that the old school sites are used in the most cost-effective manner to benefit Virginia City and Storey County residents and businesses.

Figure 9.2-6 shows existing and potential school sites in Storey County. New school sites shown in blue will be largely driven by growth in their respective areas and/or efforts to provide regional education opportunities for Storey County and its neighboring jurisdictions.

Figure 9.2-6: Existing and Potential Schools in Storey County



Source: Storey County Planning Department

In 2024, the school district had 401 students. The following enrollment for this year for each school is: Virginia City High School, 129; Virginia City Middle School, 103; Hugh Gallagher Elementary School, 126; and Hillside Elementary School, 43. The graduation rate for the 2022/2023 school year was 98%. Overall school enrollment has declined steadily between 2004 and 2024. Table 9.2-6 lists school enrollment by school

Table 9.2-6: School Enrollment, 2018-2024

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	Percent Change 2018/2019-2023/2024
District	451	440	451	435	421	401	-11.1
VCHS	127	132	156	156	149	129	+1.6
VCMS	129	122	117	103	97	103	-20.15
HGES	147	141	127	127	125	126	-14.28
HES	48	45	51	49	50	43	-10.4

Source: Storey County School District, 2024

VCHS = Virginia City High School; VCMS = Virginia City Middle School; HGES = Hugh Gallagher Elementary School; HES = Hillside Elementary School

The school-aged population in Storey County has trended downward over the past two decades. The trend is consistent for each school year, and across primary and secondary grades. Under the existing conditions this pattern is expected to continue into the foreseeable future. However, influencing social and economic factors including continued economic growth at McCarran and the potential for residential and mixed-use development at Painted Rock, has the potential to significantly influence this trend (See Chapter 5 – Population).

In 2015, Storey County School District officials reported existing schools appear to have adequate capacity to meet current student population needs. The current student population is similar to those identified in 2015 so it is anticipated that the existing schools will continue to have adequate capacity to meet student population trends. The population trends discussed in Chapter 5 – Population also suggests that the county’s existing facilities may be adequate to serve population demands into the foreseeable future.

However, the county and school district discussed the potential need for a K-12 school serving the county’s northern communities when significant population growth in that area occurs. This master plan recognizes that a public school in Painted Rock may also become the principal school serving the county’s northern communities, and that vocational education and possibly post-secondary education services may also be provided at the future facility. Chapter 4 – Public Lands also briefly discusses potential interest in constructing a secondary and a vocational education school in the Mark Twain area that would serve Storey County and the immediate northern Nevada region.

County and school officials should continue to collaborate and develop specific plans for addressing potential growth-based education needs in the county, as well as the potential for regional vocational and post-secondary learning, including inter-related to high-tech and other commercial uses in the county’s industrial centers. Per the most recent report regarding free and reduced lunch programs, 94 students currently receive free lunch, and 7 students receive reduced-price lunch.

The Storey County School District is in the intermediate planning stages of expanding the current Virginia City High School campus to accommodate kindergarten through middle school-age students,

thus creating a K-12 unified campus. The school district expects the planning stages to be complete in late 2024 and construction to begin in 2025. The success of this project would result in the district vacating existing Hugh Gallagher Elementary School and Virginia City Middle School.

The county and school district have coordinated tentative plans for transferring both school facilities to the County once vacated by the school district. In 2024, the County, in consultation with Lumos & Associates, initiated a facilities future use and structural feasibility analysis to determine the best possible uses for both buildings. Following the study, the County may desire to occupy one or both facilities with administrative offices, commission chambers, community resources spaces, and other public service facilities. Converting one or both buildings exclusively into a community or senior citizens center, or convention center are also possibilities that are being explored in the study.

9.2.5 Library Services

In 2013, Storey County and the Community Chest, Inc., a local non-profit community services organization, entered into an inter-local agreement to fund and provide library, internet access, and other access to information to residents across the county. Under this agreement, the non-profit organization houses the county's base library at its community center in Virginia City and rotates book inventory and other resource tools to various locations in the county, including the Lockwood Senior Center and Mark Twain Community Center. A new innovation relating to education and libraries, is the virtual "Libby" library. Libby offers millions of e-books and audiobooks for free to anyone with a library card. The library is funded together under the agreement by Storey County and the Community Chest, Inc. Unless circumstances dictate, plans to continue this partnership extend indefinitely.

9.2.6 Primary Healthcare

Storey County and the Community Chest, Inc., a local non-profit community services organization, entered into an inter-local agreement to fund and provide primary healthcare services to residents across the county. Through Nevada Health Centers, a federally qualified community health center, the Community Chest provides family-care, preventative health and wellness, child checkups, sick visits, sports physicals, immunizations and health management, and other primary care services regardless of patients' ability to pay. These primary care services are extended to Lockwood residents via scheduled home visits. Dental and mammogram services are also provided to all county residents via the Ronald McDonald mobile care program.

9.2.7 Parks and Special Use Facilities

Storey County maintains a neighborhood park in each of its communities. They include Miner's Park in Virginia City, the Virginia City Highlands Park in the Highlands, Peri Ranch Park in Lockwood, and Mark Twain Park in Mark Twain. The parks in Virginia City, the Highlands, and Lockwood each serve roughly 1,200 residents, and the park in Mark Twain serves roughly 550 residents.

Storey County and the Storey County School District through inter-local agreements share grounds and responsibilities for park and recreation facilities in Lockwood and Virginia City. In Lockwood, Hillside Elementary School uses Peri Ranch Park (Figure 9.2-7) for physical education and extra-curricular

activities during its hours of operation. The sharing of Louise Peri Park between Lockwood residents and Hillside Elementary School exemplifies how county facilities are utilized to their full potential. In Virginia City, the school district developed a baseball field on grounds adjacent to Miner's Park which are owned by the county and leased by the school district. To the mutual benefit of the county and school district, some non-school-related uses of the baseball field are allowed. It is important to note that these parks cannot be used by the general public during school hours; therefore, additional parks not associated with the schools, or creating new school playground areas away from the parks may should be considered to fill the need for the rest of the community.



Source: Storey County Planning Department 2015

Figure 9.2-7: Louise Peri Park

Funds for the construction of neighborhood parks are provided for in Storey County Code via the park construction tax revenue which is derived from new residential units built in the county. The rate of tax is \$200 per residential dwelling unit or mobile home lot. Nevada Revised Statute 278 mandates this revenue to be dedicated to the acquisition and construction of new parks. Maintenance and management of the parks is provided by the Public Works Department from other revenue funds.

The county capital improvement plan includes plans for neighborhood park expansions as well as new park facilities. A new dog park has been proposed for construction at the Louise Peri Park in Lockwood, along with improvements at Mark Twain Community Park and Miner's Park in Virginia City; more detail on planned projects is included in the 2025-2030 Storey County Capital Improvement Plan excerpt in Appendix H of this plan.

Regional parks and special use facilities regional parks are different than community parks. Their purpose is to conserve and enhance open space and unique nature features such as riverfront, stream corridors, and other riparian areas; wetlands and water bodies; cultural and historic resources sites; trail corridors; other significant natural environments. Regional parks are usually large in area (sometimes exceeding 100 acres) and provide for a wide range of public interests, including open space areas and special facilities providing for outdoor shelter and assembly including for individual and group camping

and picnicking, and other recreation. Each regional park may be unique in having its own particular facilities not necessarily found in other regional parks.

Special use facilities are also provided for public benefit. These facilities typically serve a particular activity or group of activities such as tennis courts, swimming pools, shooting ranges, golf courses, and sports fields. A regional trail may also be considered a special use facility. A regional trail is defined as a linear park established for the recreational activity of walking, bicycling, horseback riding, and other such uses.

Storey County provides neighborhood parks in each of its communities; however, there are currently no regional parks in the county. The county has engaged in cooperation with outside agencies and non-profit organizations that have, or are in the process of, developing regional parklike facilities.

Projects and their managing entities include the Tahoe-Pyramid Bikeway, which is constructing a regional bicycle path from Verdi to Pyramid Lake; and the Nature Conservancy which has restored riparian areas, complete with passive recreation areas, along the Truckee River. Chapter 8 – Transportation of the master plan provides further details on pedestrian and multi-use path connections throughout the county.

The County provides special use facilities to its residents and visitors, and it is actively engaged in collaborative efforts with various outside entities in planning and providing for facilities to meet current and anticipated demands.

Special use facilities include the following:

- Visitors picnicking area and restrooms at the north end of C Street
- Coming Black & Howell Pocket-Plaza at the corner of C and Taylor Streets.
- Storey County community swimming pool – updates to the swimming pool are slated for 2025 or 2026 per the Storey County Capital Improvement Plan.
- Fourth Ward School Museum; Engine Company Number 1 Fireman’s Museum; Saint Mary’s Art Center (former Saint Mary’s Hospital) Artists’ Retreat
- Virginia City and Lockwood Senior Centers; Highlands Community Center (shared with Fire Station 72); Mark Twain Community Center. Plans to retrofit the Mark Twain Community Center are scheduled for 2025.
- Piper’s Opera House and Miner’s Park Baseball Field are special purpose facilities provided with collaborative involvement between Storey County and the Storey County School District.
- Gold Hill and Virginia City Train Depots.

9.2.8 Staffing Levels and Public Services

Staffing in nearly all Storey County offices was reduced during the downturn of the economy between 2007 and 2010. Since then, public services have been adversely impacted, and the County’s remaining employees have assumed additional responsibilities in an endeavor to maintain core public services. However, the region has experienced significant economic growth and a resurgence of population and associated activity since this time.

The County and its affiliates will need to adjustment to provide an appropriate level of staff to meet the needs of residents, businesses, and stakeholders. However, the County should exercise caution and restraint in its staffing plan and opt for job sharing, flexible position arrangements, use of contractors, and building inter-local partnerships with neighboring jurisdictions and outside agencies in its pursuit to meet public services demands.

9.2.9 Public Works Maintenance Facilities

Public Works materials, equipment, and machinery are stored and dispatched from the Storey County Public Works facilities in in Virginia City and McCarran. The Virginia City facility serves all of central and southern Storey County including the Highlands, Mark Twain, Virginia City, Gold Hill, and the areas between. Lockwood, McCarran, and Painted Rock are serviced from the maintenance facility within the McCarran Government Complex at McCarran. Materials, equipment, and personnel are dispatched from both facilities for a myriad of Public Works projects, routine maintenance, and infrastructure emergencies pertaining to roads, water and sewer utilities, buildings and grounds, and snow removal. Full-service vehicle and equipment maintenance and repair are provided exclusively at the Virginia City facility.

The existing maintenance facilities meet Public Works needs across the county. New facilities or upgrades to existing facilities should be considered and prioritized in accordance with land use pattern changes and growth in each community. Changes to the use of land do not necessarily mean the number of maintenance facilities must be increased to ensure adequate services; however, it may be necessary to add, expand, or relocate them accordingly. Applications involving substantial amendments to, or assignments of land use or zoning designations should require an evaluation of Public Works facility needs to ensure that such facilities remain adequate.

9.2.10 County Administrative Facilities

Most of the County's general administrative offices are within the Storey County Courthouse and several other buildings in Virginia City. The County also maintains satellite offices within the McCarran Government Complex at McCarran. There is also an office space available at the Sheriff's substation in Lockwood.

Continued industrial and commercial growth at McCarran, and increased demand for administrative services across the county, has caused a need for increased efficiency and level of service to the public. The courthouse and other county offices are at full capacity and are not capable of accommodating much, if any, additional growth, and the facility does not facilitate efficient customer service.

Roughly \$20 million is needed to expand administrative facilities across the county and provide better access to public services and the county seat to residents and businesses. The following is planned:

1. Consolidate offices into one central building in Virginia City to increase efficiency.
 - a. Consider potential of using the Virginia City Middle School and Hugh Gallagher Elementary School buildings if they are to be vacated by the school district.
2. Expand offices at the Tahoe-Reno Industrial Center for business access.

3. Build new office space in Lockwood to provide residents access to county services.
4. Build new county offices at Painted Rock when the planned unit development is built.
5. If additional new developments are constructed, consider new county offices to serve new areas.

Consolidating administrative offices into one or two centralized facilities is considered desirable toward improving efficiency and department coordination and enhancing service to residents and businesses. Repurposing existing courthouse offices; adding space adjacent to the courthouse and acquiring property necessary to accommodate growth; developing a county administrative complex at the south side of Virginia City along State Route 341 (current site of the county jail); and repurposing other County-owned buildings are potential options for increasing office space and improving service efficiency and accessibility for the customer. If alterations or additions to the courthouse are desired, the new structure should conform to the architectural design of the courthouse.

Providing public services to residential and commercial customers at the northern parts of the county, including the Tahoe-Reno Industrial Center, will become increasingly important as growth and economic activity occur in that area. The McCarran Government Complex was designed to flexibly accommodate county administrative services in addition to Public Works, Fire District and Emergency Services, and law-enforcement needs. Relocating county administrative offices and functions principally to McCarran is not likely, nor appropriate. However, the facility is expected to become a significant secondary access point for county administrative, judicial, and other government services for residents and businesses throughout northern Storey County.

When assessing existing and future capacity and functionality of County administrative facilities and planning for building capital improvement plans, county officials should also consider collaborating with the Storey County School District to best use all available resources. With the E Street schools potentially moving to a K-12 facility, the remaining structures should be looked at for potential administrative office locations. A study was conducted in 2002 assessing the need and feasibility of expanding County administrative offices. Adding an additional annex building immediately south of the existing Courthouse was part of the preceding master plan; however, since then, a much-needed parking lot has been developed in this area and this alternative is no longer desired. Expanding onto the existing jail facility on State Route 341 may be viable for potential county facility expansion. However, recent discussion in this area has focused exclusively on law enforcement and justice uses with general county administration looking elsewhere for expansion (Figure 9.2-8).



Source: Storey County Planning Department 2014

Figure 9.2-8: McCarran Government Complex, McCarran

9.2.11 Solid Waste Management

The Storey County Solid Waste Management Plan was updated in 2018 pursuant to Nevada Administrative Code 444.658 and Nevada Revised Statute 444.510 which mandates that each municipality in the state submit a solid waste plan for approval by the Nevada Division of Environmental Protection. The 2018 plan serves as an update to the 2011 plan and provides for a systematic approach to the planning, reviewing, permitting, operation, management, and maintenance of solid wastes and solid waste management facilities in Storey County.

In addition to federal, state, and local regulations, the franchise agreement between Storey County and Waste Management, Inc., owner and operator of the Lockwood Regional Landfill (a Class 1 Municipal Solid Waste Facility) at the north end of the county, weighs heavily on how solid wastes and disposal facilities are managed in the county. Therefore, the solid waste plan provides in-depth discussion and analyses of the franchise agreement in addition to other applicable permitting, entitlements, and regulations. A new solid waste collection franchise agreement between Storey County and Waste Management, Inc was ratified in 2019 and again in 2024, ultimately creating a 10-year agreement between the parties for the collection of solid waste and recyclables throughout the county.

The Lockwood Regional Landfill incorporates approximately 3,756 acres of open land adjacent to the eastern side of Lagomarsino Canyon and Long Valley Creek (Figure 9.2-9). The Storey County Second Amended Special Use Permit 2006 allows for the landfill to occupy 2,673 acres of the 3,756-acre property.

All solid wastes generated are transported to the Lockwood Regional Landfill via Interstate 80 and Mustang Road. Refuse generated from this area include non-hazardous residential, commercial, and industrial solid wastes.

Canyon General Improvement District manages solid waste pickup in the Lockwood Mobile Home

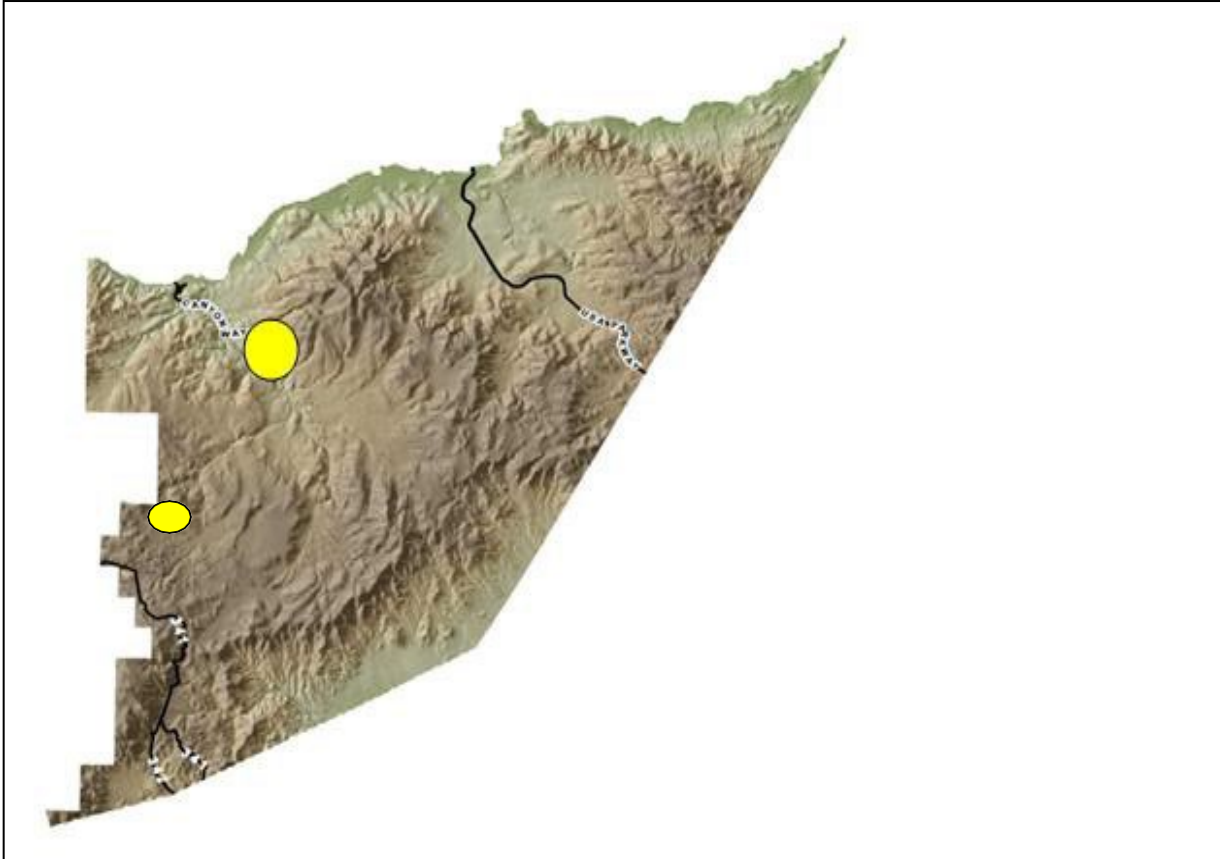
Park and Rainbow Bend subdivision through a contractual agreement with Waste Management which is separate from the County's franchise agreement with the refuse collector. Each residence within the Canyon General Improvement District's jurisdiction is provided weekly curbside trash pickup by Waste Management. A monthly bill to serve the entire area is then forwarded by Waste Management to the Canyon General Improvement District for payment. The fees are then passed down to the customers.

Tahoe-Reno Industrial Center-General Improvement District contracts with Waste Management for refuse collection at the Tahoe-Reno Industrial Center-General Improvement District Wastewater Facility. General solid waste refuse associated with the facility, excluding all material directly related to sewage treatment processes, is collected by Waste Management. No public refuse is accepted at this location.

Trash collection by the franchisee at McCarran is not mandated by Tahoe-Reno Industrial Center-General Improvement District, nor is mandatory franchisee collection required by Storey County in its agreement. Waste Management provides trash pickup services to each business requesting it; those not contracted with Waste Management typically transport their waste to the Lockwood Regional Landfill by self-haul. Hazardous and liquid wastes are transported by each company to licensed facilities capable of handling and processing such materials. Construction and demolition waste is accepted at the landfill.

Waste Management operates the Virginia City Waste Bin Site and manages pick up routes for subscribing residences and commercial establishments in all areas of the county except Lockwood. All household and commercial wastes are transported to the Dayton Transfer Station and combined with refuse before it is moved to the Lockwood Regional Landfill (2018 Waste Management Plan). Plans to expand the Gold Hill wastewater facility in anticipation of new residential/commercial construction is scheduled for 2028 per the Storey County CIP. The County is looking into relocating the Virginia City transfer station as a result of a school campus project.

Figure 9.2-9: Landfill Facilities: Lockwood Regional Landfill (top) and the Virginia City Transfer Center



Source: Storey County Planning Department

9.2.12 Telecommunications Facilities

Each community in Storey County is provided data and voice data telecommunications access by various private-sector service carriers. However, reliable and affordable access to these services is limited in many parts of the county, especially in the Highlands where a majority of the area includes no landline or wireless telephone or communications infrastructure.

Approximately \$1.7 million has been invested in Storey County's information technology network, with \$578,000 remaining in the County's capital improvement plan over the next five-year period. The upgrades maintain compatibility with changing technologies, connect the county's five residential and business communities, and facilitate interconnectivity and system redundancy with neighboring jurisdictions.

9.2.13 Countywide Broadband Internet Services Expansion

In 2024, a memorandum of understanding and a broadband service agreement between Storey County and CC Communications was ratified enabling the broadband internet provider to deploy and provide broadband internet services to residents and businesses throughout Storey County under a rate schedule set by a

broadband service agreement. The agreements provide for phased deployment and maintenance of fiberoptic broadband network infrastructure throughout Storey County to occur, providing residential broadband internet, Commercial Broadband Service, and Enterprise Broadband Service.

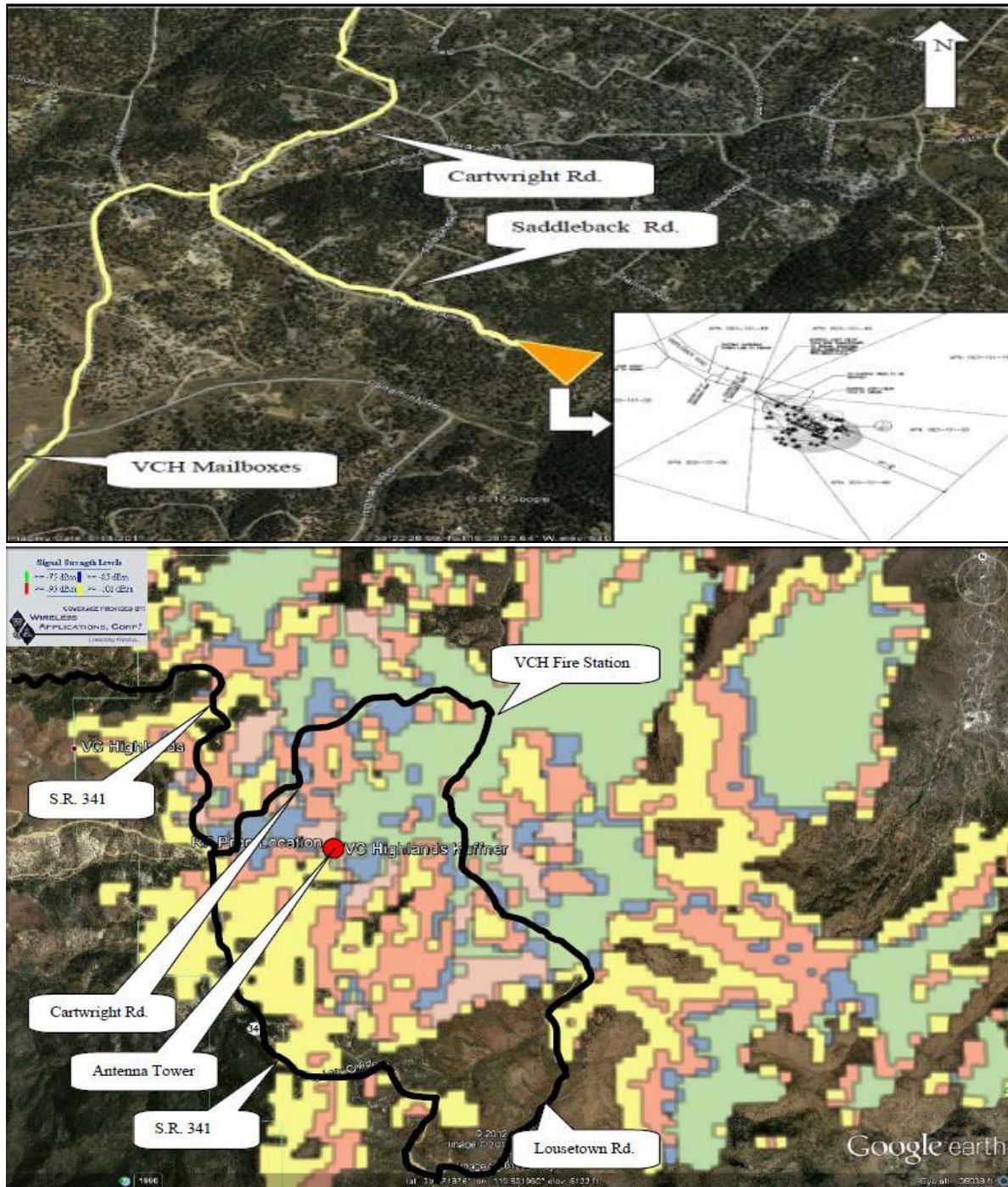
9.2.13.1 Highlands Broadband Services

For more than a decade, residents in the Highlands, as well as Virginia City and Gold Hill, expressed their need and desire for high-speed and reliable wireless voice and data services. Wireless communications infrastructure in the Highlands is depicted in Figure 9.2-10. The image portrays cell tower location and expected signal strength.

In 2012, the county commission with recommendation by the planning commission approved a special use permit application for a private company to install and operate an 80-foot-tall wireless communications “mono-pine” tower in the Highlands at the end of Saddleback Road. In 2015, the tower was constructed and its owner informed County officials that several wireless service carriers expressed interest in signing contracts to locate on the tower.

Even with carrier service located on the tower, significant areas within the Highlands will remain shadowed from its service as a result of local topography. The potential for a second proposed commercial communications facility serving areas shadowed by local topography should be considered if made to conform to area aesthetic character.

When reviewing future applications for commercial wireless communications facilities, planning staff and county leadership should recognize rules under the Federal Telecommunications Act that allows the local jurisdiction to require an applicant to demonstrate a good-faith effort to identify and evaluate the least intrusive alternatives, including site placement, tower design, and antenna placement, for providing service to rural areas (*Pittsburgh Ltd. Partnership v. Penn Tp.*, 196 F.3d 469, 480 (3d Cir. 1999)). The federal regulations also allow for local denial of new proposed facilities when capacity for additional service carriers remains on existing approved facilities.



Source: Storey County Planning Department, Development Application No. 2012-2014, Vista Towers, LLC. 2012
Figure 9.2-10: Wireless Communications in the Highlands

9.2.14 Flood Mitigation

9.2.14.1 Mark Twain Flood Mitigation

The Mark Twain Estates watershed area has been identified as one of the more flood prone areas in the county. This is due to the grid-pattern type of development built with no consideration to local topography or floodways. Local flooding conditions are exacerbated by limited capacity of existing infrastructure and limited area vegetation and the presence of alluvial fan discharge.

The Mark Twain Estates basin has numerous paved residential roads which provide access to just over 400 homes. Area residents experience reoccurring issues with flooding at roadways crossing as well as property damage from area ditches that become overwhelmed during storm events.

A comprehensive county-wide flood control study was conducted in 2011 by Farr West Engineering. The study was initiated by county officials in order to establish valid findings and recommendations for improving flood conditions in each of the county's communities, including the Mark Twain Estates.

The report included findings and recommendations related to flooding and flood mitigation in the Mark Twain Estates and its immediate surrounding area. The report recommended specific improvements to area ditches and culverts to reduce flood damage from minor storms. It also recommends major regional stormwater detention basins, particularly along the north slope of the community, that may significantly lessen flooding impacts and reduce the level of downstream infrastructure needed to manage flows and sediment load (Farr West Engineering, Comprehensive Storey County Flood Control Plan 2011).

Following two major storm events in summer 2015, County officials initiated a concerted effort toward short- and long-term flood planning and infrastructure improvements in the Mark Twain Estates. In 2019 the Dayton Valley Area Drainage Master Plan was published with the goal of identifying flooding and sedimentation hazards, reviewing previous studies, gathering information from public agencies and local residents, hydrologic and hydraulic modeling, geomorphic assessments, and conducting related field studies. This information was used to develop a series of alternatives to help mitigate the regional hazards identified and present those findings to stakeholders throughout the area.

Challenges to improve capacity and alignment of area drainage ways, culverts, and detention basins include construction costs, acquiring needed land, and negotiating easements with existing land owners.

Working collaboratively with area residents to improve local drainage systems, including within county rights-of-way and on private properties if allowed by their respective owners, is a major component of the effort. County officials also continue to explore means by which vacant property to the north of the community may be used for alluvial stormwater detention systems.

Since 2019, the following projects regarding local flood mitigation have been undertaken:

- Approximately 30 driveway and street crossing culverts on LaFond, Martin, and San Clemens street were installed. This included the excavation and grading of affected drainages and shoulders
 - 1,420 feet of 18-inch diameter culvert pipe
 - 200 feet of 36-inch diameter culvert pipe
 - \$45,000 cost estimate

The County is working on implementing more significant local roadside drainage improvements in collaboration with the Carson Water Subconservancy District. Additional projects for improving flood mitigation in the Mark Twain area are discussed in the Capital Improvement Plan included as Appendix H.

9.2.14.2 Lockwood Flood Mitigation

Portions of Lockwood and Rainbow Bend are in the Federal Emergency Management Agency designated flood zone. Frequent flooding in this area occurs from the Truckee River during winter months and late spring when abnormally high temperatures and heavy rain in the watershed cause accelerated snowmelt. Additionally, during high stage flooding of the Truckee River, backwatering occurs at the Long Valley Creek outlet which impedes creek drainage into the Truckee River and exacerbates flooding in the adjacent community. There are two significant storm events recorded in Storey County, one in 1997 and the other in 2005, when extensive community flooding occurred along the banks of the Truckee River and Long Valley Creek.

A comprehensive county-wide flood control study was conducted in 2011 on behalf of Storey County by Farr West Engineering. The study was initiated by county officials to establish valid findings and recommendations for improving flood conditions in each of the county's communities, including Lockwood and Rainbow Bend.

The report includes findings and recommendations related to flooding and flood mitigation along Long Valley Creek and its terminus outlet into the Truckee River. The report recommended improvements to upstream culverts and bridges over the creek to improve its efficiency, and improvements to the creek's outlet point into the Truckee River that may lessen backwatering into the abutting residential community. The report also notes that stormwater flows in the area may be significantly lessened by developing detention basins upstream of Long Valley Creek.

The cost of developing needed infrastructure in the area remains the primary challenge to permanently resolving flooding along the banks and at the Truckee River and Long Valley Creek.

Stemming from the 2011 study, the Long Valley Creek Flood Hazard Mitigation Plan was published in 2024. Flood hazards from Long Valley Creek were identified and quantified for the communities of Lockwood and Rainbow Bend. Bridge crossings on Long Valley Creek were found to be major sources of flow from the channel into the community in the overbank. The peak flow rate during the 100-year storm far exceeds the capacity of the existing channel and feasible expansions of that channel. Flood mitigation alternatives were developed, modeled, and shown to provide a range of reductions in flood risk. These mitigation alternatives were ranked according to likely cost to construct and maintain, the monetary benefit to flood risk reduction, and reduction of flood risk to critical infrastructure in the study area (LVCFMP 2024).

County officials have worked in coordination with the Truckee River Flood Management Authority technical advisory committees and liaised between it and Lockwood residents to assure that impacts in Storey County, with special attention to Lockwood, are mitigated in an acceptable manner.

As of 2024, potential mitigation alternatives being considered for Lockwood and Rainbow Bend by the parties included:

- Alternative 1: Channel Expansion at All Bridge Locations – South Canyon Way bridge removal,

and bridge extension at all other bridges

- Alternative 2: Peri Ranch Road and Cercle de la Cerese Bridges Replacement and Channel Expansions; South Canyon Way Bridge Removal and Channel Expansion
- Alternative 3: South Canyon Way Bridge Removal and Channel Expansion and Cercle de la Cerese Bridge Replacement and Channel Expansion
- Alternative 4: Cercle de la Cerese Bridge Replacement and Extension
- Alternative 5: South Canyon Way Bridge Removal and Channel Expansion

The design alternatives were ranked from 1 (most-preferred) to 5 (least-preferred). Table 9.2-7 lists the rankings and parameters.

Table 9.2-7: Alternatives Ranking

<i>Rank</i>	<i>Alternative</i>	<i>Mitigated Flow Rate (cfs)</i>	<i>Total Mitigation Project Cost</i>	<i>Total Mitigation Project Benefits</i>	<i>BCR</i>	<i>Structures Removed from Inundation</i>	<i>Critical Infrastructure Risk Reduction (1-5)</i>
1	3	2665	\$4,333,227	\$4,868,973	1.12	100	3
2	5	2590	\$896,023	\$2,138,028	2.38	86	5
3	2	3345	\$6,502,636	\$6,319,143	0.97	120	2
4	1	3345	\$12,782,045	\$7,071,640	0.55	158	1
5	4	2350	\$3,024,023	\$2,486,660	0.82	80	4

Source: LVCFMP 2024

The County should continue to seek funding and other resources to improve flooding conditions along Long Valley Creek, and it should also continue to work closely with the Regional Flood Management Authority to assure that impacts caused by its flood project in the Truckee Meadows are mitigated at no cost and to the satisfaction to Storey County and its residents and businesses. The County should also consider the benefits and limitations of working with private and public entities for upstream flood mitigation, including flood detention basins.

9.2.14.3 Virginia City Mitigation

Virginia City is located on the eastern side of the Flowery Range on a steep slope. During rain events, water and sediment from the canyons to the west of town enter the developed area. Due to the steepness of the terrain, runoff reaches high velocities, carrying sediment and eroding unpaved areas throughout the town. Throughout the town there is minimal existing storm drain infrastructure, so the majority of runoff is directed onto and adjacent to streets. This not only creates hazardous road conditions, but significant maintenance requirements for the County and damages to existing infrastructure. Runoff from the west enters through Six Mile Canyon, a vital connection from the Dayton Valley area to Virginia City and Reno. During large storm events, this road often becomes impassable with runoff flooding the road and washouts and sediment impacting travel.

In addition to discussing findings and recommendations for the Mark Twain Estates, the Farr West Engineering report included a brief discussion, and findings related to Six Mile Canyon Road which connects Mark Twain and Virginia City. The road is described as containing significantly undersized drainage ways and culverts along its entire alignment, causing frequent instability and washouts. Improvements for Six Mile Canyon Road are addressed in the Virginia City Drainage Plan.

Similar to its recommendations for the Mark Twain Estates, the report recommended significant shoulder and culvert improvements along the roadway as well as the construction of upstream detention basins to reduce flows in the canyon. Improvements to the existing bridge are cited as needed.

In an effort to address the hazards throughout Virginia City and Six Mile Canyon, the Virginia City/Six Mile Canyon Area Drainage Master Plan was published in November of 2023 in collaboration with the Carson Water Subconservancy District. The Virginia City and Six Mile Canyon Area Drainage Master Plan identified and evaluated sources of potential flood risk and proposed potential mitigation measures within the Virginia City and Six Mile Canyon drainage area.

Virginia City is flooded by discharge water from Spanish Ravine to the south, and Ophir and Cedar Ravines to the north. Known flood hazard issues along Six Mile Canyon were included in the flood mitigation study. Upon closer inspection of Six Mile Canyon, the majority of culverts were determined to have appropriate capacity but are blocked by sediment and debris, restricting stormwater flows. Large storms routinely wash dead brush, tree branches, and other organic materials to the nearest culvert, further exacerbating the buildup of water and debris (Virginia City and Six Mile Canyon Area Drainage Master Plan 2023).

9.2.14.4 Truckee-Carson Irrigation District Canal at Painted Rock

Built in 1932 by the United States Bureau of Reclamation, the Truckee-Carson Irrigation District Canal runs from the Truckee River diversion at Derby Dam to Newlands Project agricultural developments in Fallon. Portions of the canal are antiquated and run directly adjacent to residences in Painted Rock. Potential safety concerns have been expressed to the district by local residents and Storey County, particularly following the 2008 canal levy breach disaster in Fernley.

The District has been forthright with Storey County and federal regulators, and has remained proactive in addressing potential safety issues, such as by lining portions of the canal in Storey County near recently observed water seepage near a residence. County officials and area residents should remain watchful for signs of seepage along the canal and continue to communicate their observations and concerns to Storey County, the Truckee-Carson Irrigation District, and other appropriate authorities.

Figure 9.2-11 shows a segment of the Truckee-Carson Irrigation District Canal that was lined with concrete in 2014 after a minor leak had occurred. Figure 9.2-12 show the Derby Dam Diversion. Derby Dam was completed in 1905 and to this day diverts water from the Truckee River to the Truckee-Carson Irrigation District Canal to Lahontan Reservoir 32 miles to the south in Silver Springs. It continues to provide irrigation water for the Newlands Project that irrigates approximately 73,000 acres of cropland in the Lahontan Valley near Fallon.



Figure 9.2-11. Segment of Truckee-Irrigation District Canal



Source: National Park Service U.S. Department of Interior. Bureau of Reclamation Historic Dams and Water Projects: Managing Water in the West 2014

Figure 9.2-12: Derby Diversion Dam at Painted Rock

9.2.15 Public Safety

9.2.15.1 Hazard Mitigation

Hazard mitigation is defined in 44 Code of Federal Regulation Section 206.4014 (2008) as “any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.” As such, hazard mitigation is any work done to minimize the impacts of any type of hazard event before it occurs. It aims to reduce losses from future disasters, and aid in recovery post-disaster. The implementation of mitigation actions, which include long-term strategies that may include planning, policy change, programs, projects, and other activities, is the end result of this process.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended by the Disaster Mitigation Act of 2000, provides the legal basis for state, tribal, and local governments to undertake risk-based approaches to reducing natural hazard risk through mitigation planning.

The plan addresses ways by which to access and organize resources, assess risks, develop strategies for mitigation, and monitor hazards for the following natural- and human-caused hazards.

Natural Hazards	Human-Caused Hazards
Avalanche	Dam and Ditch Failure
Drought	Hazardous Materials
Earthquake	Mine Collapse
Epidemic	Terrorism
Expansive Soils	
Flash Flood	
Hail Storm	
Riverine Flood	
Severe Winter Storm	
Wildfire	
High Winds	

Developing hazard mitigation plans also enables the participating jurisdictions to:

- Enhance education and awareness related to threats, hazards, and vulnerabilities
- Build partnerships to address known threats, hazards, and vulnerabilities
- Engage in long-term planning
- Align risk reduction with the objectives of neighboring jurisdictions
- Direct resources appropriately to address risk
- Communicate priorities and sources of funding.

The local jurisdictions are required to develop and adopt Federal Emergency Management Agency-

approved hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. Hazard mitigation planning is also an important element toward the County's participation in the National Flood Insurance Program. The Board of Storey County Commissioners adopted the local hazard mitigation plan in 2011 and, therefore, complies with Section 409 of the Stafford Act and Section 322 of the Disaster Mitigation Act of 2000.

The jurisdictions must update their hazard mitigation plans and resubmit them to the Federal Emergency Management Agency for approval every five years in order to maintain eligibility for grants and other assistance. Federal Emergency Management Agency offers planning grants that support local jurisdictions in developing and updating their plans. Storey County most recently updated its hazard mitigation plan in 2020.

9.2.15.2 Fire Protection, Prevention, and Emergency Medical Services

In Storey County, fire protection and emergency medical services (EMS) are provided by the Storey County Fire Protection District (Fire District). The Fire District is an all-risk fire and EMS agency that provides services through a combination of career and volunteer forces. The Fire District maintains automatic-aid and mutual-aid agreements for fire and EMS response with neighboring jurisdictions and agencies. Agencies include, but are not limited, to the Truckee Meadows Fire Protection District, REMSA, Sparks Fire Department, Central Lyon Fire Protection District, North Lyon County Fire Protection District, Nevada Division of Forestry, and Pyramid Lake Fire Department.

The Fire District answers approximately 1,800 calls for services annually to an area of approximately 262 square miles. The Fire District serves a population of approximately 4,500 residents. The district also serves approximately 14,000+ additional population including employees at the Tahoe-Reno Industrial Center that work in Storey County but live elsewhere. Station 75, located at McCarran, exclusively serves this subpopulation. Impacts to volunteers are heavily influenced by special events, regularly occurring tourism, and alternate access routes between Reno, Carson City, and Dayton. The largest of these factors is the approximately one million tourists visiting Virginia City and Gold Hill each year.

Mutual and Automatic-aid agreements have been made with the Truckee Meadows Fire Protection District to provide seamless response along the Interstate 80 corridor abutting Storey and residing primarily within Washoe Counties. Throughout the state and the region, all parties have agreed to use the closest forces concept in emergency response.

Virginia City and Gold Hill have automatic aid agreements with the Central Lyon County Fire Protection District for emergency response. Run-cards indicating boundary drops are established, and each district blends resources on a regular basis to assure that the nearest responding unit attends to the subject. This agreement carries over to the Mark Twain area of Storey and Lyon counties. This area has a true boundary drop and it is a seamless shared response to every incident which occurs.

In addition to local government agreements, including for regional EMS, regional ambulance subscription, regional hazardous materials, there are state and federal agreements in place. These agreements allow for resources to move seamlessly among local, state and federal cooperators. The agreements were developed through the Nevada Department of Emergency Management, the Lake Tahoe Regional Fire Chiefs (thereby giving us direct access to resources from California), and the Sierra Front Wildfire Cooperators.

The coverage of cost for response to large-scale wildland fire incidents is addressed within an agreement

between the Storey County Fire Protection District and Nevada Division of Forestry and is funded through the Fire District directly to the division. The contract has been termed the Wildland Fire Protection Program. The program was developed to defend the people and lands of Nevada against wildland fire through collaborative and comprehensive use of fire suppression, prevention, and restoration resources available through the state.

As a combination fire agency, the Fire District provides a variety of services, including structural firefighting; wildland firefighting; technician-level rope rescue; hazardous material mitigation and response; vehicle extrication rescue; operations-level water rescue; basic, intermediate, and advanced life support and transport; internal training; regionalized external training; fire safety inspections; code enforcement; plans review; and public education and outreach.

Fire and emergency medical services are dispatched from four fire stations. \$75 million is estimated to be needed to address building deficiencies in these facilities. Additional funds will be needed for equipment, vehicles, and staffing. Issues are described as follows:

1. Virginia City Station 71

Built in 1962, the station is undersized, includes numerous haphazard add-ons, does not properly accommodate male and female quartering. In 2022, the Fire District in was awarded \$2 million for match-required rehabilitation of this station.

2. Mark Twain Station 73

New station planned to respond to growing Mark Twain Estates and abutting Lyon County communities. Fire apparatus in Mark Twain is currently staged at the Mark Twain Community Center per an interlocal agreement between the Fire District and county until a permanent fire station is constructed.

3. Lockwood Station 74

Situated in the Federal Emergency Management Agency 100-year floodplain, this station becomes inundated during major floods. The county and fire district are currently working together to find potential alternative locations in Lockwood for the placement of this fire station.

4. Highlands Station 72

Upgrades to the living facilities and domestic well will be needed due to the age of the building and increases in daily staffing. A fire apparatus bay was constructed in 2024 to expand equipment storage capacity at the station and to free up previously occupied space now used as a community center.

5. Tahoe-Reno Industrial Center 75

Two additional fire stations are needed to meet five-mile radius International Service Operations requirements for anticipated growth. Development of a second fire station at the north end of McCarran will enable the fire district to vacate or partially vacate existing

Fire Station 75 and free up additional space for county administrative offices, Sheriff's Office substation facilities, Public Works equipment staging, and other public services facilities.

Response Districts

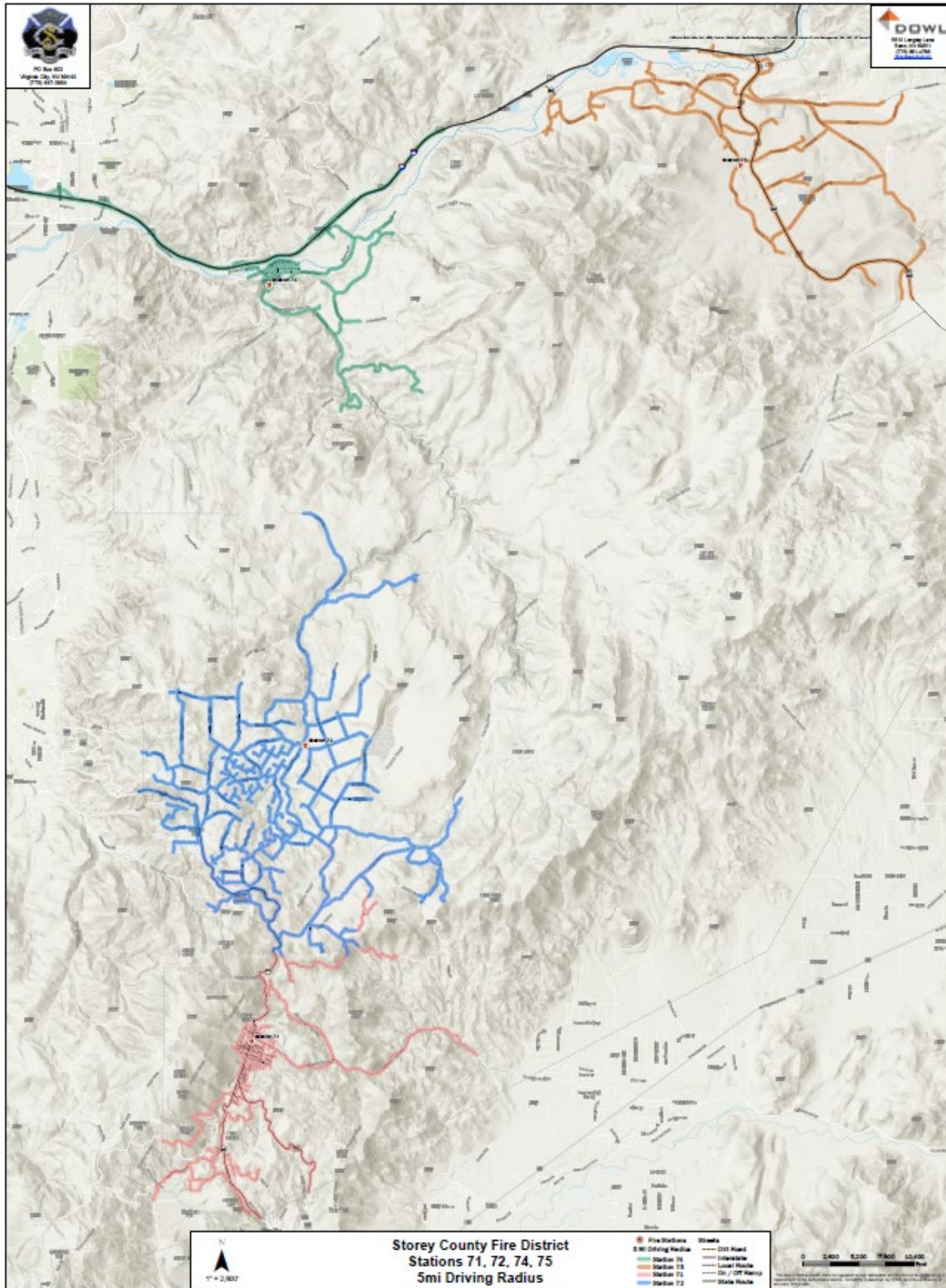
The Fire District is subdivided into smaller response districts, providing for the closest unit to respond to requests for assistance (Figure 9.2-13). Each of these districts represents a different level of hazards and response need. Each response district is staffed full-time with career fire and EMS staff. Station 72 in the Virginia City Highlands is also intermittently staffed with volunteer personnel. Storey County and Central Lyon Fire Protection Districts in 2013 entered into mutual agreement to unify service for the Mark Twain/Carson Plains region out of Central Lyon Fire Protection District Station.

30-Foot Clearance Inspections

The Fire District routinely conducts 30-foot courtesy residential evaluations. These voluntary evaluations inform residents of potential fire hazards and ways to minimize risk from wildland fires. Homeowners are advised during these evaluations to clear fire-prone vegetation 30 feet from structures and ten feet from propane tanks, maintain addresses visibility from the street, and to maintain sufficient emergency vehicle access.

Medical conditions and other potential concerns of the residents during a potential evacuation were also noted during the visits. The information will be used to help the Storey County Sheriff's Office and Fire District identify priority need residents during an emergency evacuation.

Property assessment findings and other conditions were entered into Computer Aided Design systems for future access by the Fire District and communications department (dispatch 911) during emergencies. These programs provide public and fire personnel safer means to preserve life, property and the environment.



Source: Storey County Fire Protection District 2022
Figure 9.2-13: Storey County Fire District Stations

Residential Defensible Space Assessments/Community Wildfire Protection Plan

The Fire District has performed courtesy defensible space assessments for greater than a decade to the communities of Virginia City, Virginia City Highlands, Gold Hill, Mark Twain, and Painted Rock. The Fire District will continue in this capacity and use these assessments in cooperation with the State of Nevada Community Risk Assessment Tool to identify areas with significant fire potential and plan for future mitigation strategies. The assessments are a voluntary program used to inform residents of potential fire hazards and approaches to minimize risks related to wildland fires. Topics discussed during the assessments include removal of fire-prone vegetation from around structures and utilities, maintaining sufficient access for emergency vehicles, using fire-resistive construction and “home-hardening” techniques, and maintaining visible address markings for responders. The intent of this program is to provide the public and emergency responders with safer means to preserve life, property, and the environment.

In addition to defensible space assessments, the Fire District will complete the update and modernization of the county-wide Community Wildfire Protection Plan (CWPP) during 2024-2025. The CWPP is a collaborative strategy developed by local, state, and federal organizations and stakeholders to address wildfire risks. CWPPs are particularly utilized in areas where homes are built near fire-prone lands, known as the wildland-urban interface. For reference, Storey County has a significant amount of identified “high risk” wildland-urban interface per capita, consistently above the 90th percentile in the country. This plan will help our communities identify their specific wildfire protection needs and priorities, such as hazard mitigation, community preparedness, and structure protection. CWPP updates also enable communities to access resources and funding for implementing wildfire mitigation measures. These plans are crucial for enhancing resilience to wildfires across various areas by tailoring strategies to local conditions and priorities.

Hazard Fuels Reduction Programs

The Fire District has secured approximately \$1.5 million in grant funding from federal and state government cooperators, including the U.S. Department of Agriculture – U.S. Forest Service, U.S. Bureau of Land Management – Nevada State Office and Nevada Division of Forestry. This funding will support hazard fuels reductions projects from 2024 through 2027 and potentially beyond. Project areas reside within Virginia City, Virginia City Highlands, Gold Hill, and Mark Twain. The Fire District will work with various landowners and agencies to implement hazard fuels reduction using current best management practices and guidance, ensuring to have a lasting effect of developing “fire resilient” communities within Storey County. The previously mentioned grant funding will also be used for update and modernization of the CWPP.

The Fire District continues to manage the “You-Call-We-Haul Program,” which provides education, outreach, and resources (dump trailers) to residents throughout the county to assist with hazard fuels reduction and enhancing defensible space. For fiscal year 2023-2024, over 120 trailers were provided to community members through this program. The Fire District also manages community collection sites for vegetation disposal, with the primary site located in Virginia City Highlands at the Fire District Station 72. Vegetation at the collection sites is managed by prescribed fire and chipping / mulching for disposal. Between the above-listed programs, the Fire District was able to dispose of approximately 850 tons of hazard fuels during fiscal year 2023-2024.

Lastly, the Fire District continues to function as a partner and contractor for NV Energy to complete wildfire mitigation projects adjacent to NV Energy infrastructure. Whereas this program is statewide in nature, a major focus has been placed on areas within Storey County. NV Energy has categorized a large section of Storey County as “Tier 3,” which is the designation related to areas that are of highest priority. Recognizing this, the Fire District will continue in partnership with NV Energy to meet the management goals and objectives as prescribed.

9.2.15.3 Law Enforcement

The Storey County Sheriff’s Office serves as the county’s only law enforcement agency. The Sheriff is an elected official and manages a staff of 28 paid employees, 12 volunteer employees, and a fleet of approximately 15 marked- and unmarked vehicles. The Sheriff’s Office is divided into four divisions: Administration, Investigations, Patrol, and Jail. In 2024, the office employed one undersheriff, two assistant sheriffs, four sergeants, 12 patrol deputies, four corrections officers (jailers), and four reserve deputies.

There are approximately 4.75 career officers per 1,000 residents in the county. The national average is 2.5 officers per 1,000 residents in urban areas, and 3.7 for jurisdictions under 10,000 in population (Federal Bureau of Investigation 2011). The average response time for all calls of services is ten minutes. In 2023, the sheriff’s office issued approximately 1,560 citations, responded to 8,761 calls for service, made 283 arrests, and investigated 97 accidents. The Sheriff’s Office also manages specialized services including search and rescue, school safety intervention, youth education programs, and senior citizen support services. Mutual-aid agreements are made with neighboring jurisdictions that provide the Sheriff’s Office with Special Weapons and Tactics, Crisis Negotiation, Bomb Squad, K-9, and other specialized services. The Sheriff’s Office also serves as the county coroner under NRS and investigated ten death investigations between 2019 and 2024. The main Sheriff’s Office administration building is centrally located on C Street in Virginia City, and a Sheriff’s administrative substation is located on Canyon Way in Lockwood. The county’s only jail is at 911 State Route 341 in Virginia City. Currently, the jail has the capacity for 25 adult inmates. All juveniles are housed in Carson City’s Juvenile Facility. Plans are underway to add an additional substation within the McCarran Government Complex at McCarran. The substation will initially house administrative facilities for patrol units in the industrial center. However, it is anticipated that the substation will include temporary holding cells in the foreseeable future.

The following law enforcement facility improvements are planned across Storey County:

1. Sheriff’s Office Headquarters

Plans to relocate the sheriff’s office to a more centrally located and accessible area is desired.

2. Jail improvements

Built in the 1990s, the facility no longer meets inmate demands and needs major structural repairs. The facility is scheduled in the Capital Improvement Plan for full rehabilitation or replacement by 2030.

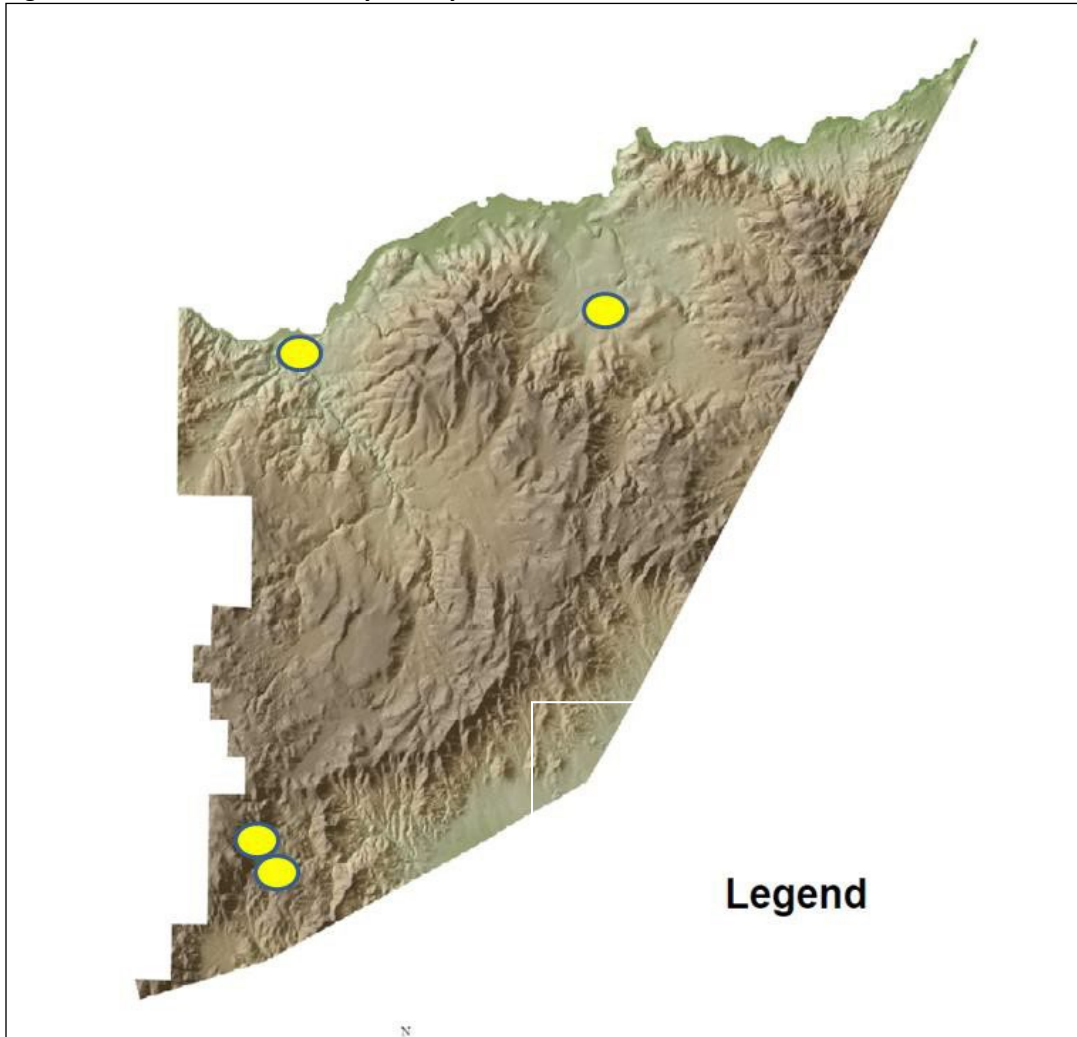
3. Lockwood Substation

The Lockwood Sheriff’s Substation building was replaced with a new facility in 2024.

4. Tahoe-Reno Industrial Center Substation

A substation is planned to be added at the Tahoe-Reno Industrial Center at the existing McCarran County Complex.

Figure 9.2-14: Locations of Storey County Sheriff's Office Facilities



Source: Storey County Planning Department

9.2.15.4 Dispatch and Communications

Dispatch service is provided by the Storey County Communications Department. In 2019, Storey County relocated its 911 dispatch center to a vacated bank building. Building retrofits, consoles, mountaintop microwave, and other equipment needed to move the center cost approximately \$1.7 million. The center provides full-time 24/7 dispatch service to the Storey County Fire Protection District, Emergency Management Department, Storey County Sheriff's Office, and numerous other non-direct service agencies. Center call statistics by year (calendar year) are listed in Table 9.2-8.

Table 9.2-8. Emergency Dispatch Call Statistics, 2021 - 2023

Year	Number of calls
2021	15,690
2022	17,429
2023	16,779

Source: Storey County Communications Department, 2021-2023

Note: Numbers are approximate.

9.3 Regional Approach to Providing Services

The growth in Storey County over the past few years has added strain to the public facilities and resources. County officials increasingly looked to regional partnerships with neighboring jurisdictions, federal and state agencies, and for-profit and non-profit entities to maintain the needed level of services for its residents and stakeholders. This approach has also been taken to improve economic development and other conditions in the county. The following services are being met through some level of inter-local cooperation:

- Fire protection and emergency medical services
- Fire protection and emergency medical services facilities use
- Public Works projects and equipment sharing
- Parks and recreation facilities
- Meeting and conference facilities
- Library services
- Adult and youth social services
- Geographic Information Systems mapping and data services

9.4 Goals, Policies, and Objectives

Goal 1: Develop regional approaches to providing public services and facilities in Storey County in coordination with general improvement districts, federal and state agencies, for-profit and non-profit organizations, and other jurisdictions.

Policy	
Policy 1.1	Cooperate with other service providers to encourage the use of common improvement standards, coordinate the time of capital projects, ensure that requirements of adequacy and concurrency are met and develop programs to reduce the cost of providing public services and facilities.

Goal 2: Plan and provide for the services necessary to implement this master plan by updating the capital improvement plan on a consistent basis.

Policy	
Policy 2.1	Include in the capital improvement plan capital projects that conform to the master plan and all of its elements.
Policy 2.2	Evaluate potential capital projects according to established criteria to determine their importance in relation to the master plan's goals and policies. Priorities in the capital improvement plan should be based on the project's importance to the master plan implementation.
Policy 2.3	Use the capital improvement plan to repair and replace existing public facilities.

Goal 3: Provide levels of services to maintain and improve the current quality of life for citizens and businesses in the county.

Policy	
Policy 3.1	Select specific capital improvements needed to achieve and maintain standards for existing and future populations and businesses.
Policy 3.2	Plan for adequate public facilities by constructing needed capital improvements which: (1) repair or replace obsolete or worn-out facilities; (2) eliminate existing deficiencies; and (3) meet the needs of future development and redevelopment caused by previously issued and new development permits. The ability to provide needed improvements will be demonstrated by maintaining a financially feasible schedule of capital improvements.

Goal 4: Ensure that new development pays an equitable share of cost for public services and facilities needed to serve the development.

Policy	
Policy 4.1	Pursue development agreements to ensure that developers pay their fair share for needed public services and facilities.
Policy 4.2	Participate in legislative planning and affairs ensuring that certain tax incentive prospective companies do not cause undue burden on county resources.

Goal 5: Protect the public health, safety, and welfare of all Storey County residents and visitors.

Policy	
Policy 5.1	Continuing to implement, test, and update the Storey County Fire Protection District Standards of Cover.
Policy 5.2	Coordinate with the Storey County Fire District to maintain alignment between master plans, capital improvement plans, and other plans between both jurisdictions.
Policy 5.3	Enhancing the quality of life and security of all, by providing fair, consistent, effective and professional law enforcement services.
Policy 5.4	Expand inter-local agreements with neighboring jurisdictions to provide effective and efficient services.
Policy 5.5	Plan and provide the services and facilities necessary to protect citizens, businesses, visitors, and other stakeholders in the county now and in the future. These services and facilities should include fire protection, law enforcement, flood mitigation, water availability, and other public services.

Goal 6: Provide residents and visitors direct conduit to emergency services

Policy	
Policy 6.1	Use the Quad-County microwave infrastructure and provide more efficient and reliable emergency radio coverage throughout the county
Policy 6.2	Collaborate with partners in the Quad-County area to improve radio communications in the event of an emergency.
Policy 6.3	Dedicate a communications channel to connect the Quad-County area dispatch centers together and provide radio interoperability
Policy 6.4	Use, enhance, and upgrade available Phase 2 wireless Next Generation 911 service.

Goal 7: Protect the public health, safety, and welfare through mitigation of hazards.

Policy	
Policy 7.1	Maintain and update the Hazard Mitigation Plan every five years in order to reduce or eliminate the long-term risk to human life and property from natural hazards including, but not limited to, earthquakes, wildland fire, flooding, severe storm events, and human caused hazards including, but not limited to, hazardous materials, terrorism, mines, and failures of dams and ditches
Policy 7.2	Ensure that the county Hazard Mitigation Plan conforms to Federal Emergency Management Agency requirements as a condition for receiving certain type of non-emergency disaster assistance, including funding for mitigation projects and participation in the National Flood Insurance Rate Program.
Policy 7.3	Develop, maintain, and update hazard mitigation plans that enable participating jurisdictions to enhance education and awareness, build partnerships related to the mitigation of threats, hazards, and vulnerabilities; engaging partners in long-term planning; aligning risk reduction with the objectives of neighboring jurisdictions; directing resources appropriately to address risks; and communicating priorities and funding sources for risk mitigation.

Goal 8: Coordinate the creation or amendment of aboveground utility corridors.

Policy	
Policy 8.1	Continue to work toward relocating utility lines underground whenever possible and appropriate.
Policy 8.2	Minimize the number of overhead transmission line corridors in residential areas, areas with prehistoric cultural resources, and in the Virginia City National Historic Landmark, and ensure that new overhead transmission lines are located in accordance with all applicable criteria.
Policy 8.3	Expand overhead transmission utility corridors in McCarran and other surrounding industrial areas as appropriate to enhance economic development opportunities and minimize unnecessary bureaucracy.
Policy 8.4	Cooperate with adjacent jurisdictions, the Nevada State Office of Energy, and the U.S. Bureau of Land Management to ensure that the aboveground utility plan is consistent with any resource management plans prepared by the U.S. Bureau of Land Management, transmission plans adopted by the Nevada State Office of Energy, and aboveground utility plans of adjacent jurisdictions.
Policy 8.5	Apply appropriate setbacks of proposed aboveground utility corridors near any schools,

	hospitals, and residential areas.
Policy 8.6	Coordinate with electric transmission service providers within Storey County; adjacent jurisdictions; the Nevada State Office of Energy; and the U.S. Bureau of Land Management
Policy 8.7	When changes are proposed, provide information to the public and hold at least one public workshop to discuss the location of changes to the aboveground utility corridors.

Goal 9: Provide residents and visitors reliable access to high-speed internet and broadband services, and other communications technologies.

Policy	
Policy 9.1	Consider commercial wireless communication facilities where needed when they are designed to be compatible with the area in which they are located
Policy 9.2	Allow the development of additional wireless communication facilities in the Highlands, Virginia City, and other areas once existing devices meet their full carrier capacity.
Policy 9.3	Facilitate limited no-cost internet access to tourist visitors in Virginia City.
Policy 9.4	Implement the terms and conditions of the 2024 memorandum of understanding and broadband service agreement between Storey County and CC Communications for the phased development of fiberoptic and other broadband infrastructure throughout the county serving residents, businesses, schools, and community.

Goal 10: Provide residents with services, resources, and programs designed to stimulate imagination, satisfy curiosity, and create young readers.

Policy	
Policy 10.1	Provide community support and education programs such as before-and-after school programs; summer education programs; school dropout remediation; mobile classrooms such as Classroom-on-Wheels Bus; service-learning and cultural exchange programs; tutoring services; counseling services; food and thrift store access; and job training and placement programs.
Policy 10.2	Engage in inter-local agreements that help provide resources and facilities necessary for the Storey County School District and certain non-profit organizations to fulfill their mission of bettering the local community.

Goal 11: Provide adequate school facilities for residents in response to growth.

Policy	
Policy 11.1	Use planning guides, standards, and criteria implemented by the Storey County School District to estimate and project student populations in each of the county's communities.
Policy 11.2	Maintain close communication and cooperation between county and school district staff to estimate the location of needed future school facilities including evaluations of potential new school facilities for the planned Painted Rock community, Mark Twain, and the relocation of the Virginia City Middle School and Hugh Gallagher Elementary School.
Policy 11.3	Require developers of planned unit developments to dedicate to the county and/or school district land necessary for construction of public schools and public services facilities. The location and quality of land must meet the standards of this master plan and not cause undue strain on county/school district resources.

Goal 12: Maintain adequate Public Works maintenance facilities across the county.

Policy	
Policy 12.1	Require applications involving amendments or assignments of land use or zoning designations to be evaluated for facility needs to ensure that maintenance facilities remain adequate
Policy 12.2	Evaluate the McCarran County Complex for future expansions to accommodate snow removal and road maintenance equipment, vehicle maintenance, and other Public Works uses.

Goal 13: Maintain adequate public services to residents, businesses, and others throughout the county.

Policy	
Policy 13.1	Continue to provide safe, efficient, and adequate office and meeting spaces in different parts of the county for government and public service functions.
Policy 13.2	Assess the existing capacity and planning for future capacity of County administrative facilities in all parts of the county.
Policy 13.3	Use the McCarran County Complex to expand public services including, but not limited to, administrative, court, and emergency services, proportional to growth in the northern parts of the county.

Policy 13.4	Evaluate spaces of the McCarran County Complex for county uses once vacated by the fire district.
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Goal 14: Explore alternative location(s) for certain County administrative offices.

Policy	
Policy 14.1	Consider expansions to the County jail facility at 911 State Route 341 and consolidate certain law enforcement, legal, and justice facilities to that facility.
Policy 14.2	Consider other County-owned buildings in Virginia City to be repurposed for county administrative offices.
Policy 14.3	Strategically relocate certain County administrative offices to a central consolidated administrative building in Virginia City.
Policy 14.4	Continue coordinating with the Storey County School District to acquire Virginia City Middle School and Hugh Gallagher Elementary School if they are vacated by the school district.
Policy 14.5	Conduct a comprehensive facilities future use and structure feasibility study to determine the best and most cost-effective uses for existing and potential future buildings of the County including, but not limited to, vacated school buildings in Virginia City acquired by the County.
Policy 14.6	Relocate Community Development to a consolidated administrative building in Virginia City and relocate Public Works administrative offices to the vacated Community Development building.

Goal 15: Maintain the Storey County Courthouse as a functional and operating government facility.

Policy	
Policy 15.1	Provide continued maintenance/repairs to the Storey County Courthouse.
Policy 15.2	Repurpose spaces within the courthouse to increase available office space.
Policy 15.3	Consider the addition of an administrative office expansion adjacent to the courthouse building. The addition, or new structure, should resemble the architectural design of the current structure.
Policy 15.4	Evaluate how the historic courthouse may be retrofitted or reconfigured to properly accommodate modern jury trials, security, and other district court requirements.
Policy 15.5	To maintain use of the historic courthouse as an operational facility providing government functions and services to residents and businesses.

Goal 16: Preserve the historic integrity of County-owned historic structures for the enjoyment of residents, visitors, and scholars.

Policy	
Policy 16.1	Conform to Nevada Revised Statute 384 Comstock Historic District requirements in decisions affecting architecture, materials, colors, and design elements of County-owned historic structures.
Policy 16.2	Establish and maintain inter-local agreements with non-profit and other organizations for the preservation and enhancement of County-owned historic structures.
Policy 16.3	To maintain use of the historic courthouse as an operational facility providing government functions and services to residents and businesses.

Goal 17: Provide clean and accessible water throughout Storey County.

Policy	
Policy 17.1	Create incentives to encourage existing development to connect into existing municipal water systems instead of drilling private wells.
Policy 17.2	Require new planned unit developments and land subdivisions to connect into municipal water systems or have densities which cause no adverse impact on area underground water resources.
Policy 17.3	Comply with all state and federal water regulations.
Policy 17.4	Continually update the Water Resource Plan.

Goal 18: Minimize high-water demand on public and private landscaping areas.

Policy	
Policy 18.1	Encourage low-water-consumption vegetation and efficient irrigation systems in all new developments.
Policy 18.2	Serve as a role-model in the community by applying xeriscaping to all public buildings landscaping where feasible.
Policy 18.3	Educate residents, businesses, and school-age children the principles, practices, and benefits of xeriscaping.
Policy 18.4	Require xeriscaping provisions in all planned unit developments and private-public development agreements.
Policy 18.5	Provide economic and other incentives by adjusting the water rights dedication requirements to reflect the reduced water demand of water conservation landscaping and fixtures.

Goal 19: Reduce non-point water pollution sources and improve groundwater recharge through Low-Impact-Development processes.

Policy	
Policy 19.1	Require comprehensive Low Impact Development practices in all planned unit developments.
Policy 19.2	Provide economic or other incentives for Low Impact Development retrofits to existing developed properties and small-scale developments.
Policy 19.3	Educate residents, businesses, and school-aged children the principles, practices, and benefits of Low Impact Development practices.

Goal 20: Reduce water consumption for new buildings and developments.

Policy	
Policy 20.1	Adopt new building standards for water conservation devices in the County code.
Policy 20.2	Encourage and promote gray-water conservation systems.
Policy 20.3	Require the installation of water conservation devices in occupied units of all planned unit development and subdivision approvals.

Goal 21: Improve the quality and quantity of water in the Highlands and Mark Twain.

Policy	
Policy 21.1	Provide education and other assistance that helps each community develop its own general improvement districts.
Policy 21.2	Consider inter-local cooperation with adjacent jurisdictions to provide access to their municipal water systems where needed.
Policy 21.3	Consider and implement the recommendations found within the United States Geological Survey groundwater study conducted in the Virginia City Highlands.

Goal 22: Provide adequate community wastewater facilities.

Policy	
Policy 22.1	Encourage the reuse and repurposing of effluent wastewater at the Tahoe-Reno Industrial Center for industrial and other non-potable uses.
Policy 22.2	Monitor the Nevada Division of Environmental Protection groundwater quality data for the Highlands and Mark Twain to provide needed time to help the communities plan for wastewater treatment needs as they arise.
Policy 22.3	Require all golf courses to be irrigated exclusively with secondary effluent water
Policy 22.4	Continue reporting to the State suspected domestic well withdraws exceeding two acre-feet per year.

Goal 23: Prevent individual sewage disposal systems in rural areas from degrading groundwater quality.

Policy	
Policy 23.	Require new planned unit developments and land subdivisions to connect into municipal wastewater systems or have densities which cause no adverse impact on underground water resources.
Policy 23.2	Allow rural areas to be served by individual septic systems if groundwater quality will conform to with federal, state, and county standards.
Policy 23.3	Implement state standards to evaluate new septic systems on the basis of site susceptibility to groundwater pollution by septic effluent.
Policy 23.4	Ensure that the location, design, construction, and inspection of on-site sewage disposal systems (e.g., septic systems, engineer systems) comply with County codes and Nevada Administrative Code 444 “Regulation Governing Individual Sewage Disposal Systems.”
Policy 23.5	Monitor areas with high septic system densities for signs of groundwater contamination.
Policy 23.6	Require the abandonment of failed septic systems and corrective action that conforms to federal, state, and county standards.

Goal 24: Minimize flooding and flood damage.

Policy	
Policy 24.1	Implement recommendations provided in the Long Valley Creek Flood Hazard Mitigation Plan.

Policy 24.2	Participate in regional cooperative efforts for floodplain management and planning.
Policy 24.3	Work closely with the Truckee River Flood Management Authority (Truckee River Flood Project) to assure that regional flood projects cause no adverse impact on Lockwood and area properties.
Policy 24.4	Develop and implement floodplain building codes which building in known floodplains and floodways. Look to Federal Emergency Management Agency recommendations and standards found in the IBC.
Policy 24.5	Improve Long Valley Creek flows through Lockwood and to the Truckee River
Policy 24.6	Work with land owners in upstream Lagomarsino Canyon to mitigate downstream flooding in Lockwood.
Policy 24.7	Evaluate regional flood mitigation for any development that occurs in Lagomarsino Canyon upstream of Lockwood.
Policy 24.8	Educate residents about best development practices in and near floodways and floodplains.
Policy 24.9	Implement the Virginia City Master Drainage Plan.
Policy 24.10	Implement the Dayton Valley Area Master Drainage Plan.
Policy 24.11	Evaluate existing infrastructure and flooding conditions and make improvements based on those factors.
Policy 24.12	Develop a comprehensive flood and drainage study for the Painted Rock area, and by developing a list of solutions based on the findings of the study
Policy 24.13	Participate in regional cooperative efforts for floodplain management and planning in the Painted Rock area.
Policy 24.14	Work with the Truckee River Flood Management Authority (Truckee River Flood Project) to assure that regional flood projects cause no adverse impact on Painted Rock and area properties.
Policy 24.15	Communicate with the Truckee-Carson Irrigation District regarding any known leakages or potential compromises to the Truckee-Carson Irrigation District Canal.
Policy 24.16	Require the construction of appropriate stormwater drainage and on-site detention of any planned unit development.
Policy 24.17	Educate residents about best development practices in and near floodways and floodplains
Policy 24.18	Replace the Painted Rock Road Bridge over the Truckee River, or by raising it above the identified Federal Emergency Management Agency base flood elevation.
Policy 24.19	Continue the partnership between Storey County and the National Flood Insurance Program to incentivize and facilitate the development of flood resistant structures and help reduce the cost of flood insurance for residents.
Policy 24.20	Implement flood mapping drafted by Federal Emergency Management Agency.
Policy 24.21	Regulate the type and location of development within identified floodplains and floodways.

Goal 25: Preserve public community parks and recreation areas.

Policy	
Policy 25.1	Use this master plan as a guide for determining the future need for community parks and common open spaces.
Policy 25.2	Require the dedication or reservation of community parks, recreation facilities, trailheads, trail systems, and common open spaces in all planned unit development approvals.
Policy 25.3	Require substantial or total financial contribution by the developers of all planned unit developments to the construction of parks, recreation facilities, trailheads, trail systems, and common open spaces in proposed developments.
Policy 25.4	Adopt a County ordinance establishing the minimum percent of a planned unit development to be dedicated to common open space.
Policy 25.5	Coordinate parks planning with other recreation providers such as the school district, and other private, state, and federal entities.
Policy 25.6	By continuing to coordinate with the Tahoe-Pyramid Trail (formerly “Bikeway”) to facilitate a regional trail alignment that meets the needs and desires of residents in Lockwood.

Goal 26: Develop Divide Reservoir as a community park.

Policy	
Policy 26.1	Evaluate the costs, risks, and feasibility of developing the Divide Reservoir and its immediate surrounding premises to accommodate outdoor public recreation, including fishing and/or swimming.

Goal 27: Renovate and improve existing parks and recreation areas.

Policy	
Policy 27.1	Evaluate specific improvements to recreation facilities that are desired by local residents
Policy 27.2	Maintain and improve area parks so that they remain safe, attractive, and otherwise desirable for recreation and other outdoor uses.

Goal 28: Include parks, recreation, and education as part of large-operations mining.

Policy	
Policy 28.1	Require special use permits for large-operations mining to include a public information and education element, mandating the development of centers or kiosks at or adjacent to the large- operations mine from which the public may view and learn about the history and other information about mining on the Comstock as well as the subject active mine.
Policy 28.2	Require special use permits for large-operation mining to include regional park facilities, recreation, and education integration into post-mining reclamation plans when not in conflict with state or federal regulations and agency jurisdictions.

Goal 29: Enhance the interface between the Truckee River and Lockwood and Mustang communities.

Policy	
Policy 29.1	Improve local access to the Truckee River.
Policy 29.2	Improve recreation opportunity along the Truckee River.
Policy 29.3	Improve and facilitating natural landscaping and flora along the banks of the Truckee River.
Policy 29.4	Encourage natural waterway and riparian area restoration projects.

Goal 30: Use vacant spaces in downtown Virginia City for public use.

Policy	
Policy 30.1	Explore the costs, risks, and feasibility of utilizing certain vacant parcels and other spaces in downtown Virginia City for interim permanent public (“pocket “parks) and recreational spaces.

Goal 31: Provide solid waste management processes that promote recycling and alternative uses of the waste stream.

Policy	
Policy 31.1	Maintain and update the Storey County Solid Waste Management Plan every five years pursuant to Nevada Revised Statute requirements.
Policy 31.2	Ensure that the services provided under franchise agreements are cost effective for county residents, businesses, and stakeholders.

CHAPTER 10

Water & Natural Resources



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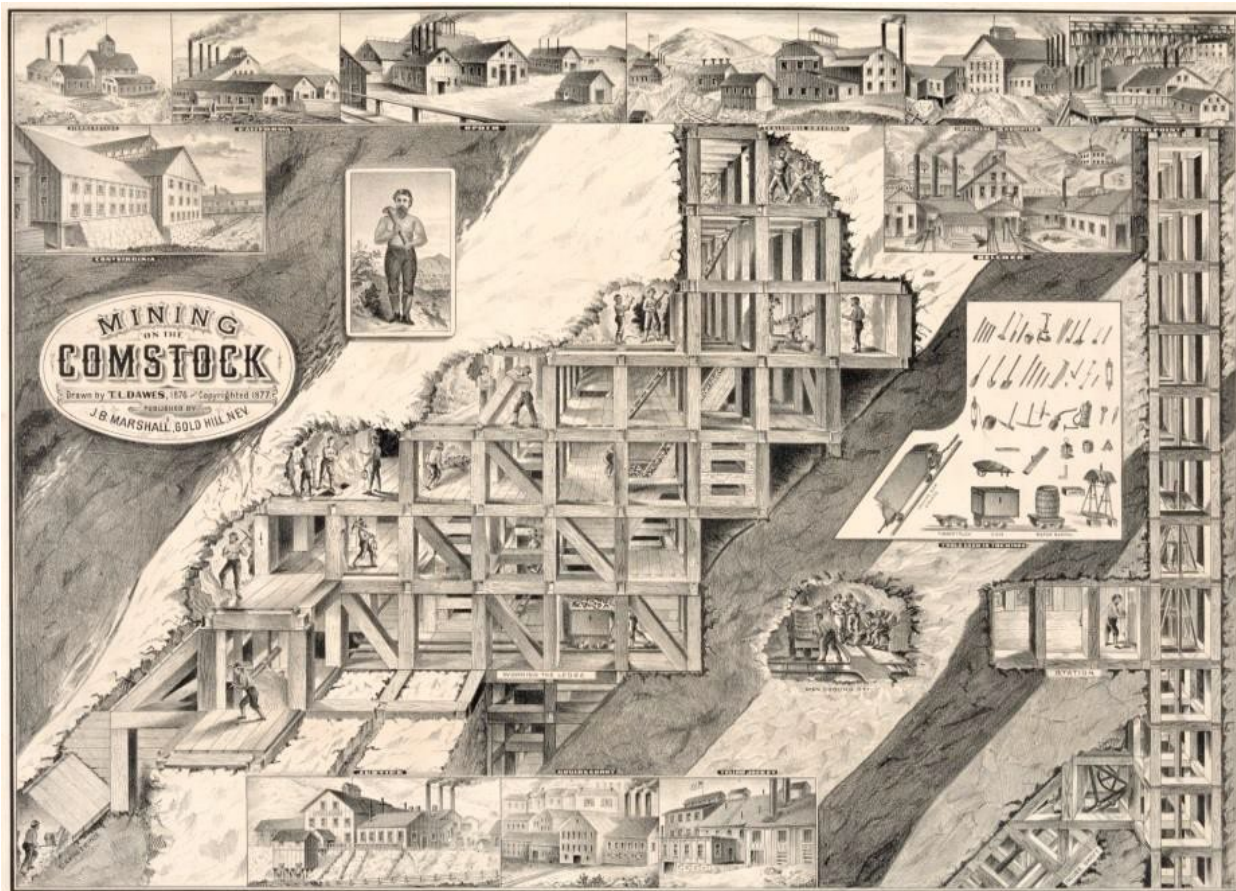
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10.1 Chapter Introduction

There are approximately 169,221 acres of land in Storey County. The county area spreads across two drainage basins: about 75 percent of the county's land area is located in the Truckee River Basin (about 75 percent of the area) and Carson River Basin (25 percent of the area).

Storey County contains many notable natural features and resources. Above Virginia City, Mount Davidson stands 7,868 feet tall, the highest point in the county. Below Virginia City was the famous Comstock Lode, which produced over 6.9 million tons of ore and many technological advancements which helped Nevada become a state and gave Nevada the "Silver State" name. Figure 10.1-1 depicts aspects of mining on the Comstock.



Source: T.L. Dawes 1977, U.S. Library of Congress

Figure 10.1-1: Drawing depicting aspects of "Mining on the Comstock" (T.L. Dawes, 1877, U.S. Library of Congress)

In addition to mining history, remnants from times long before the mining boom are visible in the landscape, such as at the petroglyphs in Lagomarsino Canyon (see Chapter 11 – Cultural & Historic Resources for more discussion of Storey County history). Agriculture including ranching is a historically important land use in the county. Natural open-space areas are now mostly used for outdoor recreation (see Chapter 4 – Public Lands for more discussion of open space resources in the county).

Today, land in Storey County is largely used for development rather than natural resource extraction. Over half of the land area in the county (roughly 107,000 acres) has been designated for industrial development as part of the Tahoe-Reno Industrial Center. Residential estates also take up a significant portion of land in the county. Otherwise, residential subdivisions and towns are mostly concentrated along the county's border areas, including Virginia City/Gold Hill, the "River District" (south of the Truckee River along the northern boundary of the county), Mark Twain, Lockwood/Mustang, and planned future development at Painted Rock. (See Chapter 3 – Land Use for more details on development areas.)

Storey County historically places a high value on its open space. As undeveloped areas of the county are developed, protecting the county's environmental and natural resources is important. This chapter discusses goals, policies, and objectives regarding the protection of water and natural resources.

10.2 Geological Setting and Hazards

10.2.1 Slope

Storey County is mostly comprised of steeply sloped, mountainous terrain. There is some flat land in the River District, in the interior of the northeast part of the county (where the Tahoe-Reno Industrial Center is developing), and around some residential areas such as Mark Twain and parts of the Highlands. Virginia City was built on steep slopes, but the environment constraints of the land make it undesirable to follow this precedent.

Figure 10.2-1 depicts the topography of the county. Terrain with 0 to 10 percent slope (green or yellow on the map), or up to 15 percent slope (orange on the map) with more significant engineering, is considered the most suitable for development. Any part of the map highlighted in red has a slope over 15 percent. As shown in Figure 10.2-1, much of the land in Storey County is over 15 percent slope and may pose challenges to future site development.

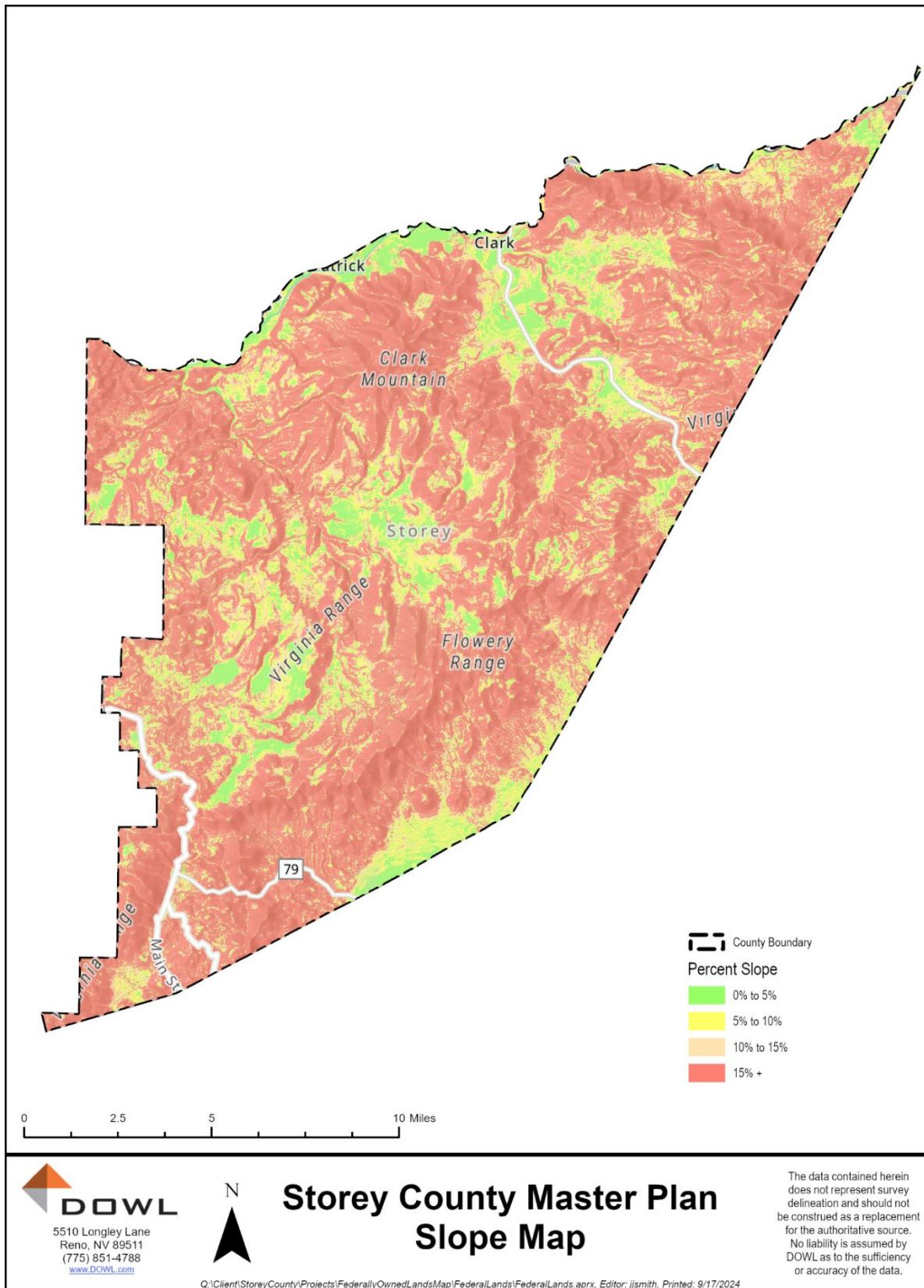


Figure 10.2-1: Topography in Storey County

10.2.2 Geology

The geology of Storey County has greatly dictated its development. A wealth of mineral deposits shaped the county's early development, while poor quality groundwater throughout the county has restricted some development activities.

Based on the 1990 soil survey of Storey County Area Nevada (USDA 1990), the general geology of much of the county is comprised of volcanic rocks with layers of sedimentary rock (conglomerate, sandstone, shale and diatomaceous sediment) overlain by thin surficial deposits of alluvium comprised of gravel and sand.¹

10.2.3 Seismology

Storey County is in western Nevada, which has relatively high seismic activity compared to many areas in the United States. Figure 10.2-2 depicts the chance of potentially damaging ground shaking in Storey County as well as Nevada and surrounding states. The southwestern portion of Storey County around Virginia City is expected to have the highest frequency of potentially damaging seismic activity within the county (shown in darker red). Seismic risk is a major consideration for Storey County land use planning, and particular construction requirements are necessary.

¹ U.S. Department of Agriculture, Soil Conservation Service. 1990. Soil Survey of Storey County Area, Nevada

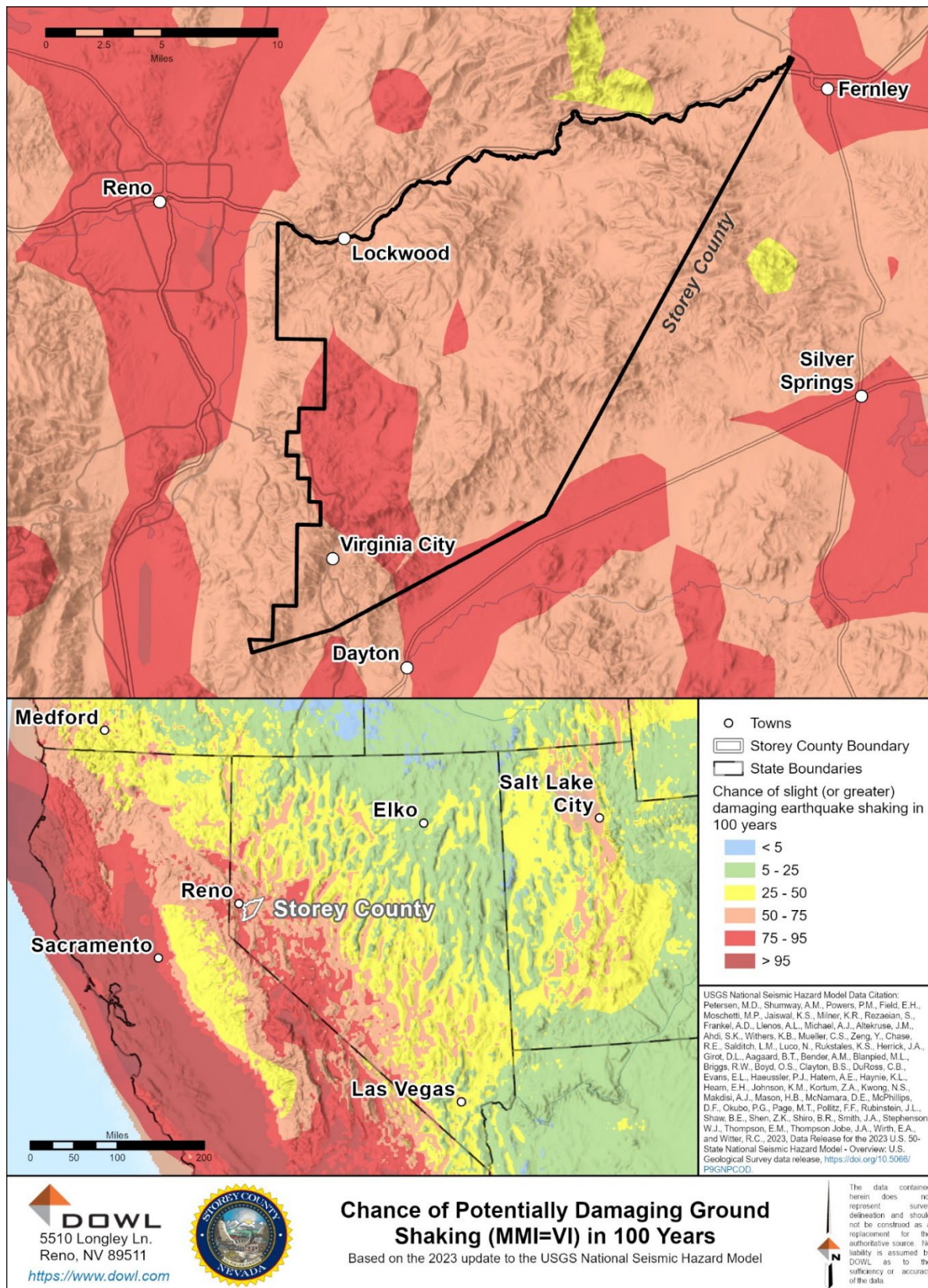


Figure 10.2-2: Chance of damaging seismological activity in Storey County, Nevada, and Surrounding States

10.2.4 Soils and Erosion Risk

In 1990, the U.S. Natural Resources Conservation Service generated a comprehensive soil survey for Storey County to describe soil characteristics which affect the County's development potential.

Of concern to Storey County is its marginal ability of the land to capture and hold what little precipitation it receives. All but a small portion of the county has been classified by the U.S. Natural Resources Conservation Services as exhibiting poor infiltration capability. Because of this condition, most of the county's water runoff occurs as surface flow and leaves the county. Only a small portion occurs as groundwater yield.

Water runoff causes erosion, and most of the county's soils exhibit a moderate to severe erosion hazard. Any disturbance to natural conditions will greatly increase erosion. Most of the county also exhibits a moderate to severe wind erosion hazard. Likewise, any disturbance to natural conditions, such as blading to create roads, will cause earthen materials to be loosened and greatly increase wind-borne erosion.

Efforts should be made to slow the water runoff to encourage greater infiltration. The County might consider infrastructure projects to slow the flow of larger drainage canyons as well. Site development recommendations and requirements should continue to consider water availability, soil permeability for septic systems, drainage issues, and slowing the flow to reduce erosion risk.

10.2.5 Flood Planning

Planning for flood hazards has garnered increased attention in Storey County. Most of the Lockwood community is within a designated Federal Emergency Management Agency 100-year floodplain (locally designated as special flood hazard areas) along the Truckee River. The Mark Twain area is also subject to flash flooding events. The County has been collaborating with neighboring counties, the Truckee Meadows Flood Management Authority, the Federal Emergency Management Agency, and the Nevada Department of Emergency Management to develop flood models, establish mitigation plans, and identify funding opportunities for improvements.² Additional information regarding floodplain land use management is provided in Chapter 3 – Land Use.

The County has been enrolled in the National Flood Insurance Program since 1978. The County also participates in the Community Rating System, which assigns ratings from Class 1 to Class 10 based on a participating community's flood protection activities. Communities with better ratings (closer to Class 1 than 10) have taken more flood protection measures and therefore receive greater discounts on National Flood Insurance Program insurance premiums for property owners – the discount can be up to 45 percent in a Class 1 community. The purpose of this program is to: “provide an incentive for communities to implement additional flood protection activities that can help save lives and property when a flood occurs.”³

Storey County is currently rated at Class 9, earning property owners in the county a five percent discount on National Flood Insurance Program premiums. Improving the Community Rating System rating would

² Regional Economic Impact Report, 2023.

³ https://www.fema.gov/sites/default/files/documents/fema_crs-brochure_032023.pdf

require the County to change its codes to raise the base floor elevation, but that would make Storey County's existing floodplain communities all non-conforming and potentially add significant cost for residents making changes to their properties, therefore, this is not a goal of the County at this time. Instead, Storey County has decided to invest more into addressing flood risk as a community and doing community projects that help make the area safer.

No 100-year flood events have occurred since the 2016 Master Plan, although there have been several significant storm events. Aside from risks associated with flood events, fast-moving runoff may fail to infiltrate into the soil and instead flow overland out of the county, representing missed opportunity for much needed recharge of local aquifers in Storey County. The County could pursue infrastructure projects to assist in the capture of precipitation and runoff alongside flood mitigation efforts.

10.3 Water

Water is essential to any land use and availability of water should be the primary consideration in determining if development is appropriate for any given area. Given Storey County's limited water supply and lack of larger municipalities with independent water systems, the County is responsible for managing sustainable water resources for its residents.

10.3.1 Groundwater Availability

Like most of western Nevada, Storey County lies in the rain shadows created by the Sierra Nevada Mountain Range and a portion of the Virginia Range. Average annual precipitation in Virginia City is approximately 11.7 inches per year.⁴ Higher elevations within the county receive more annual precipitation, while the area's lower elevations may receive up to several inches less annual precipitation. The county has areas of snow accumulation, especially at higher elevations, but average annual snowfall has been declining in recent years.

Annual recharge is a challenging condition in the county for a variety of reasons. Because the topography is generally steep, soil permeability low, and vegetation sparse, it is difficult to retain water within the county, except for the alluvial fans located at the base of various drainage networks. Storey County is subject to climatic conditions characteristic of a high-mountain desert. During summer, sporadic convection storms deliver about 25 percent of the region's annual precipitation in large amounts over small areas. Winter storms are the primary source of upslope recharge.

The Highlands, Mark Twain, and American Flat areas are currently served by domestic groundwater wells and not the County water system. According to the 2023 Storey County Water Resource Plan (included as Appendix B of this master plan), it is estimated that 588 acre-feet is annually pumped in the Highlands, 333 acre-feet in Mark Twain, and 15 acre-feet in the American Flat area (using a consumption rate of 1 acre-foot per domestic well). The Highlands and Mark Twain areas, and possibly other areas, have experienced water availability problems and observed the water table falling during extended dry periods. Also, according to the 2023 Water Resource Plan, it is not feasible to develop a single groundwater well to serve the communities due to aquifer performance concerns.

⁴ According to National Weather Service Regional Climate Centers data.

A 2018 United States Geological Survey – Nevada Water Science Center study found that water levels appear to be falling in the Highlands, at an average rate of 5.7 feet per year in two monitoring wells between 1997 and 2016. In 2018, the study reported, “analysis of the State of Nevada Division of Water Resources well log database indicates 103 of 623 domestic wells (17 percent) [had] been deepened or replaced since the development of the VC [Virginia City] Highlands, indicating that water-level declines are widespread and represent a significant cost burden to homeowners in the area.”

The 2018 Nevada Water Science Center study continued through 2022 and evaluated “water-level decline and aquifer properties in the VC Highlands and Highland Ranches Volcanic Rock aquifer system.” In 2023, the County and the United States Geological Survey modified an existing joint funding agreement to continue supporting groundwater monitoring work in the Virginia City Highlands and the Highland Ranches for the following five years. As of a 2024 update, approximately 114 of the 728 domestic wells in the Highlands (16 percent) had either been deepened or replaced. From 2019 through 2023 during a period of drought, average groundwater levels dropped significantly. After above-average precipitation in winter 2023, most water levels were observed to increase. However, large changes in water levels occurred during the 2018 to 2024 period, which generally indicates limited aquifer storage. Groundwater monitoring is scheduled to continue through 2028 as part of the current project.

As a result of groundwater supply concerns, the 2023 Water Resource Plan includes an analysis of water rights, projects, and funding that would be needed to provide water to areas of the county that are currently relying solely on domestic wells.

10.3.2 Surface Water Systems in the County

Currently, the only source of domestic water for the Virginia City/Gold Hill area comes from the State-owned Marlette Lake Water System, which serves approximately 803 metered customers as of 2023. The local system is served by the State-owned system under a contract, which also defines payment rates. As of 2023, Storey County, Carson City, and Truckee Meadows Water Authority were preparing to negotiate an updated agreement for future delivery of water through this system. The 2023 Water Resource Plan (and future updates every five to ten years) can help inform County priorities in this new agreement. The water system is discussed further in Chapter 9 – Public Services & Facilities and in Appendix B of this master plan.

The County does not own the water rights to what is currently its only water supply (the State-owned Marlette Lake Water System). However, each of the water rights owned by the State defines the place of use as Virginia City, Gold Hill, Silver City, and Carson City. Prior to the State being able to deliver water to locations not currently included as the place of use, such as expanded development areas in Storey County, a temporary or permanent change to the water right would have to be approved by the Nevada State Engineer.

According to the 2023 Water Resource Plan, the Marlette Water System source is very reliable and of high quality, but the volume of water available is restricted by transmission pipeline capacity. Annual snowpack, fishery management at Marlette Lake, and operating agreement limits also have a potential to limit the amount of water available from this source. The annual volume of water available under the Franktown Decree to the Nevada Public Works Division is approximately 7,200 acre-feet annually. Per the previous operating agreement, the County has reserved up to approximately 500 acre-feet of that

annual total. Additional detail regarding water system infrastructure and potential future investments is discussed in Chapter 9 – Public Services & Facilities.

The Tahoe-Reno Industrial Center is serviced by its own water system managed by the TRI General Improvement District. The district has capacity for additional growth, and the area’s grey water management system adds to their conservation efforts. The planning and funding that contributed to this infrastructure project is discussed further in Chapter 9 – Public Services & Facilities.

The Canyon General Improvement District provides water services to the Lockwood area, and it may have capability to expand into parts of Mustang to its immediate east.

10.3.3 Water Quality

In addition to restricted groundwater availability, Storey County groundwater has been found to be poor in quality. Potable groundwater is in short supply in Storey County due to low precipitation, low recharge, and a soil mantle naturally high in sulfates, iron, and numerous other elements which become dissolved in groundwater.

A water quality study for the 1994 Master Plan found that about 60 percent of water at sites studied around the county did not meet water quality standards for domestic consumption. Substandard water was found in Storey County at approximately three times the rate it was found on average in the five other western Nevada counties. According to the 2023 Water Resource Plan, water quality continues to be an issue in county groundwater, and private wells must be outfitted to filter out contamination.

More recently, nationwide water quality discussions have focused on increasingly common reports of per- and poly-fluoroalkyl substances contaminating water resources and leading to harmful health impacts. A paper published in 2021 documented per- and poly-fluoroalkyl substances in some surface water and sediment samples collected around the state, including eight sites along the Truckee River, Lake Tahoe, and Pyramid Lake.⁵ In response to the growing issue, in 2024 the U.S. Environmental Protection Agency passed the Safe Drinking Water Act, which mandates monitoring every five years for priority contaminants that may be present in drinking water but are not yet subject to Environmental Protection Agency drinking water regulations. Under the Unregulated Contaminant Monitoring Rule, the Environmental Protection Agency collects nationally representative drinking water data to support future regulatory actions and, as appropriate, develops national primary drinking water regulations. Additionally, the Nevada Division of Environmental Protection has executed a per- and poly-fluoroalkyl substances sampling and analysis contract to look for these contaminants in Nevada.

In 2023, the Storey County Board of Commissioners, the Canyon General Improvement District, and the TRI General Improvement District authorized participation in the Integrated Source Water Protection Program, which is administered by the Nevada Division of Environmental Protection Bureau of Safe Drinking Water. In 2024, the County Board of Commissioners adopted a new Community Source Water Protection Plan for the Storey County water system, and the General Improvement Districts also adopted the plan for their systems. The Community Source Water Protection Plan: “aims to identify and manage potential risks to source water (groundwater, lakes, rivers, streams, or springs)” and creates a plan to

⁵ <https://ndep.nv.gov/water/pfas-in-nevada>

protect against contamination and preserve the quality of source water in different areas across the county.

The vision of the Community Source Water Protection Plan is to: “ensure safe and sustainable drinking water for all residents and businesses.” The Community Source Water Protection Plan includes detailed Action Plans for each improvement district or area within the county, and Goal 4, Policy 1 in of this chapter of the master plan addresses that the County should support the intent, policies, and implementation actions in the Action Plans of the Community Source Water Protection Plan.

10.3.4 Implications for Future Development

Future development in Storey County should follow a cautious approach regarding planning for water availability. There is some debate on the accuracy of wet water (physical water that can be pumped from the ground) versus paper water (a water right), so a conservative approach is needed. This can help ensure the success of new developments and protect against unwise investments or possible County burdens in the future. Existing development areas should continue to be monitored for water supply to inform future development density allowed.

County zoning and allowed development density should consider the land necessary for recharge in order to provide water for new proposed uses. Any further subdivision or development outside of the available water systems in the county must show water rights ownership (coordinated with the Nevada State Engineer) to accompany the subdivision application. Land use considerations based on water availability are discussed further in Chapter 3 – Land Use.

10.3.5 Water Summary

Future land use densities should be based on water availability from basin-wide inventories. This should result in development densities that will not lead to the mining of water or taking more water out of the ground than is naturally recharged.

The generally accepted standard is one acre-foot available for each single-family dwelling. This encompasses not only the actual water use of the residents but also the numerous demands created by subdivision development (e.g., firefighting, recreational use, water loss). County aquifers should be monitored through well log data, a groundwater monitoring system, or a joint study/effort to monitor sensitive areas where well water is the primary source. Water resources considerations for development density are discussed further in Chapter 3 – Land Use.

Especially given that climate change is expected to alter current conditions in Storey County and likely exacerbate existing water resources and other environmental challenges, it is critical that the County work towards goals, policies, and objectives established in this chapter to protect the future of local natural resources for future generations of residents.

10.4 Weather and Climate

10.4.1 Weather

Virginia City and the nearby Highlands are at an elevation of over 6,000 feet. This is considerably higher than the rest of Storey County's populated areas. The Mark Twain and River Districts are more representative of the temperatures experienced in the Reno and Carson City areas, which tend to be hotter and drier on average. Typical temperature and precipitation data for Virginia City is provided in Table 10.4-1 as reported by the National Weather Service Regional Climate Centers data.

The county's high mountainous locations are conducive to greater precipitation, which average slightly under 12 inches a year in Virginia City, and about an inch less in lower-lying areas. Much of this precipitation comes as snow during the winter. According to National Weather Service data, total snowfall averages 46 inches a year, which is down 10 inches from average annual snowfall of 56 inches reported in the 2016 Master Plan.

Summer daytime average temperatures are in the 70s and low 80s (degrees Fahrenheit). The nighttime temperatures drop down to the mid- to high-50s. During the winter, daytime high temperatures average 40 to 50 degrees and nighttime temperatures range from 25 to 32 degrees.

Despite the high elevation of Virginia City, Gold Hill, and the Highlands, the growing season is relatively long, averaging 107 days per year. Relative humidity is slightly higher than the regional average. Humidity averages 30 to 50 percent over the year but varies from about 70 percent during the winter to approximately 20 percent during mid-summer. Thunderstorms average about 10 to 15 storms per year and are usually accompanied by lightning.

Wind information is relatively sparse. The higher, exposed location of Virginia City – especially in the Divide area between Virginia City and Gold Hill – leads to higher wind velocities than other areas of the county. The Virginia Range also has an effect on the prevailing winds, which generally are from north to south and west to east. However, “Washoe Zephyr” upslope and downslope valley winds are dominant throughout the day. Occasionally wind speed has been known to reach over 100 miles per hour.

Table 10.4-1: Virginia City Average Precipitation and Temperature (1991-2020)

Month	Average Precipitation (inches)	Mean Maximum Temperature (°F)	Mean Minimum Temperature (°F)	Mean Average Temperature (°F)
January	1.82	40.9	27.0	33.9
February	2.06	43.1	28.6	35.9
March	1.60	49.0	32.9	40.9
April	0.54	54.6	35.7	45.2
May	0.74	63.9	44.0	53.9
June	0.55	74.3	52.8	63.5
July	0.19	83.8	61.5	72.6
August	0.24	82.4	60.1	71.2
September	0.29	73.9	53.1	63.5
October	0.65	61.3	42.5	51.9
November	1.07	48.8	32.7	40.8
December	1.95	40.3	26.4	33.4
Annual	11.70	59.7	41.4	50.6

°F = degrees Fahrenheit

Source: Weather.gov (National Oceanic and Atmospheric Administration Regional Climate Centers)

10.4.2 Climate

Many areas in the western U.S. have observed trends toward hotter and drier conditions over the past few decades. The Desert Research Institute, located in Reno, is a non-profit research institute that publishes data, analysis, and other resources specific to Nevada. Figure 10.4-1 and Figure 10.4-2 depict changes in precipitation and mean temperatures between 1900 and 2018 using the Desert Research Institute and Western Regional Climate Center WestMap Climate Analysis & Mapping Toolbox. Average annual precipitation has been variable – see the red line in Figure 10.4-1 spiking with higher “highs” and lower “lows” in the time since 1980, as compared to the fluctuations between 1900 and 1980. The running mean (blue line) shows a general downward trend in average annual precipitation since around 1980. For Storey County’s mean temperatures in Figure 10.4-2, the running mean shows annual mean temperatures have been on a steady rise from around 48.5 degrees Fahrenheit around 1900 to 1940, up to 51 degrees Fahrenheit since 2000.

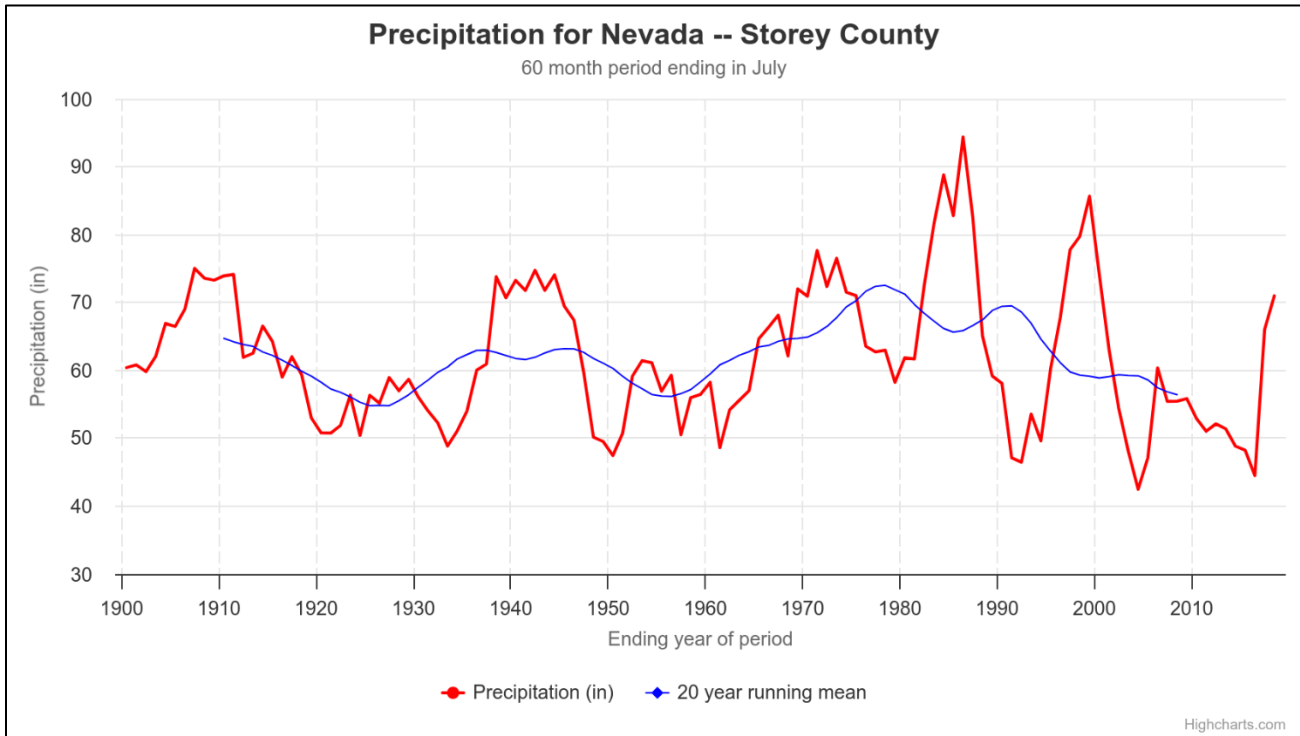


Figure 10.4-1: Annual Precipitation Trend in Storey County (1900 – 2018 Data)

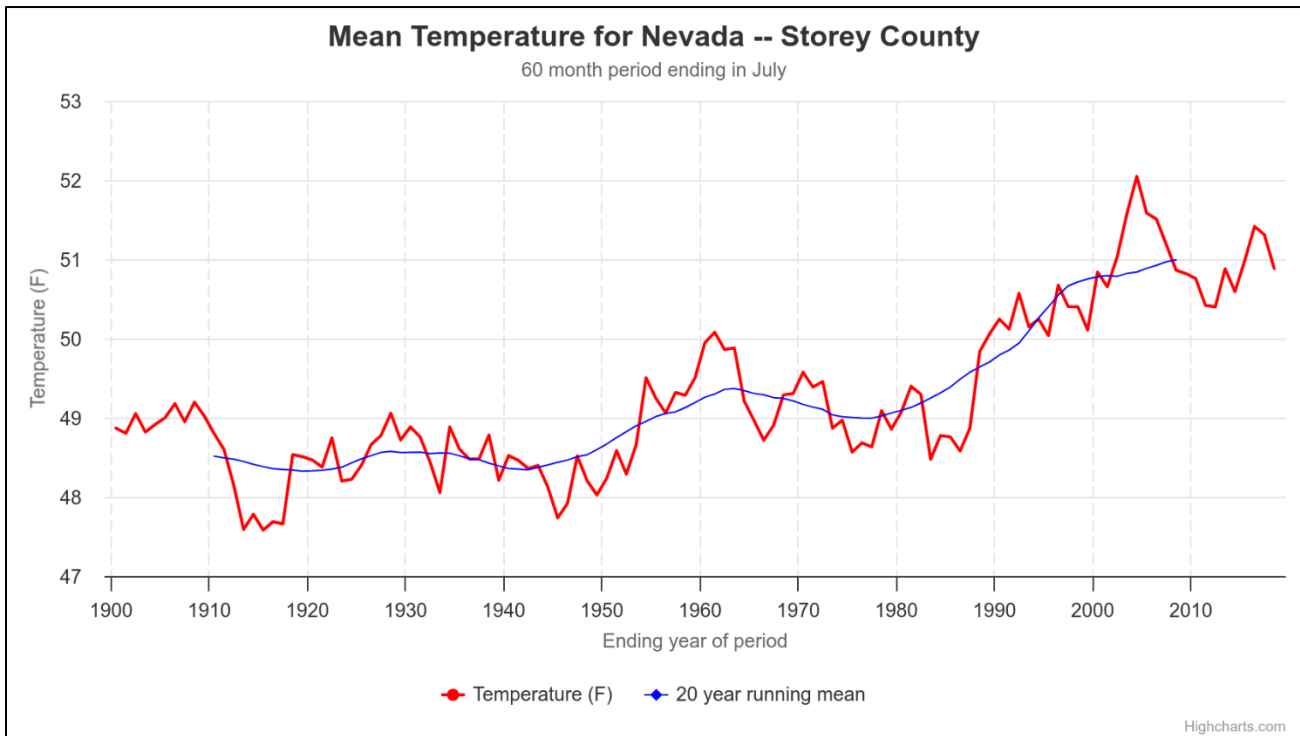


Figure 10.4-2: Annual Mean Temperature Trend in Storey County (1900 - 2018 Data)

According to the 2023 Water Resource Plan (see Appendix B), water resources and other natural resources within Storey County are anticipated to experience lasting impacts due to climate change if current trends continue. Key climate vulnerabilities may be as follows:

- Increased air and water temperatures would place additional stress on sensitive ecosystems and species
- Loss of snowpack storage may reduce reliability of surface water supplies and result in greater demand on groundwater resources
- Magnitude and frequency of extreme precipitation events may increase, resulting in greater flood risk
- High temperature and longer dry seasons would increase wildfire risk.

10.4.3 Air Quality

Air movement through Storey County normally helps to maintain good air quality. Generally speaking, Virginia City and the Virginia Highlands do not experience the stagnating air which normally occurs on many valley floors of Nevada caused by temperature inversions and other phenomena (particularly during winter). As noted above, climate change could impact weather and temperature patterns in the county, which could exacerbate air quality issues that may arise.

There are three Nevada Division of Environmental Protection air quality monitoring stations in the county, in Lockwood, Virginia City, and the Highlands. The data from these monitoring stations track several pollutants including wildfire smoke, and the data is converted into Air Quality Index values.

The county can experience drier, less stable soils that are more likely to contribute to dust, and dry vegetation can also act as fuel contributing to wildfire risk. The Nevada Fire Board published a Landscape-Scale Wildland Fire Risk/Hazard/Value Assessment for Storey County in 2009; conclusions include that:

“[A] “normal fire year” is becoming a thing of the past. Fire season—once considered to run from May or June to September or October—is being replaced by a year-round season, marked by late winter and early spring fires that can destroy homes and other improvements and impact grazing lands and important wildlife habitat. A large part of this change is due to the loss of native vegetative communities that have been replaced by invasive, fire-prone species such as cheatgrass and red brome. Areas that at one time experienced a wildland fire reoccurrence interval of approximately 35 years are now experiencing wildland fires with return intervals as short as every 2–3 years.”

Fires ranging from small brush fires to larger wildfires are a regular occurrence in recent years. Smoke from wildfires can have a significant negative impact on air quality, which in turn can have negative impacts on human and environmental health. Also as discussed above, hotter and drier conditions can contribute to wildfire risk and the smoke can subsequently harm air quality. Wildland fire management is discussed further in Chapter 4 – Public Lands and Chapter 9 – Public Services & Facilities.

Other factors impacting air quality include greenhouse gas emissions and dust from transportation, development, industrial activities, and energy generation projects can all detract from air quality in the

county. Policies and objectives for monitoring baseline air quality and impacts that may result from these activities are provided later in this chapter. Efficient and low-emission operations should be encouraged and/or required going forward, and the County may wish to pursue additional alternative energy generation opportunities to further reduce greenhouse gas emissions and protect air quality.

Because air quality is an important factor influencing local quality of life, it is the policy of Storey County to protect air quality. This effort will include a variety of strategies including protecting against wildfires and monitoring and regulating air pollution from dust, greenhouse gases, and other factors.

10.5 Flora and Fauna

10.5.1 Flora

Vegetation within the county is mainly restricted to three communities: the Pinion-Juniper, the Big Sagebrush-Grass, and the Low Sagebrush-Grass. The Pinion-Juniper, located in the upper elevations of Storey County, is accompanied with an understory of big sagebrush and antelope bitterbrush. Frequently lying above the Pinion-Juniper is the Low Sagebrush-Grass community. Associated with low sage are grasses and forbs such as needlegrass and balsamroot. Below the Pinion-Juniper lie the Big Sagebrush-Grass community. Big sagebrush is accompanied by a host of grasses, forbs and shrubs.

These vegetal communities are typical of the region and exist in a very harsh climate. Recovery from disturbance is slow. Disturbance to vegetation leads to a host of environmental problems such as dislocation of native fauna (permanent or seasonal), increased erosional hazards and a deterioration of the local watershed. Maintaining native vegetation should be encouraged to maintain the topsoil of the county. See Appendix I of this master plan for a comprehensive list.

10.5.1.1 Noxious Weeds and Invasive Species

Invasive and other noxious weeds in Storey County are currently displacing diverse native plant communities and greatly impacting Nevada's natural and economic resources. Weeds currently identified at measurable levels include Russian knapweed, tamarack, Russian thistle, and whitetop. Noxious weeds can have significant negative impacts on property value, fish and wildlife habitats, soil stability, water quality, recreation opportunities, human and animal health, and forage production for agriculture producers; generally, they disrupt and harm local ecosystems. Per a 2009 Nevada Fire Board study on wildland fire risk, invasive vegetation such as fire-prone cheatgrass and red brome is also known to contribute to wildfire risk.⁶

Noxious weed infestation in Storey County requires constant attention to keep weed populations under control. Due to the county's broad range of land management and ownership, a comprehensive and cooperative approach to noxious weed management across all jurisdictional boundaries is essential. The County has regularly worked with the Bureau of Land Management and regional conservation organizations (including the Dayton Valley Conservation District, Washoe-Storey Conservation District, Carson-Truckee Conservancy District, and Carson Water Subconservancy District) to manage invasive

⁶ <https://forestry.nv.gov/uploads/missions/Storey-Assessment-Final.pdf>

weeds on both private and public land.

The cooperating agencies conduct noxious weed monitoring and mapping, herbicide treatment, and community education and outreach. The spirit of cooperation has been the cornerstone for controlling noxious weeds in Storey County, yielding measurable success in abating noxious weed infestations and enhancing ecosystems and wildlife habitats. Continued collaboration is essential to keeping the county's noxious weed problem under control and protecting against broader potential impacts like providing fuel for wildfires, especially as hotter and drier conditions associated with climate change may also contribute to an increase in wildfire risk.

10.5.2 Fauna

Wetlands, riparian habitat, and Waters of the United States⁷ are key habitats supporting the diverse populations of waterfowl, fisheries, wildlife, and plant communities within the county. The Truckee River is important to the region's fishery and provides spawning grounds for the Lahontan Cutthroat Trout and the cui-ui.

Within the interior of Storey County exists the usual array of wildlife found in western Nevada. Game birds such as the mountain- and California valley quail, dove, and chucker partridge are found around the county's inland springs and seeps. Cottontail rabbits also dwell close to natural water supplies. It is possible that sage grouse are in the county, although none have been identified.

The county hosts one of Nevada's larger herds of wild horses (Figure 10.5-1). The Bureau of Land Management estimates the Nevada population of wild horses at over 27,000 animals, and several hundred live throughout the county. The wild horse is the primary grazing animal in some areas including the Highlands area and Tahoe-Reno Industrial Center. These herds can drastically impact vegetation. The County supports land management strategies that balance the needs of wild horses against potential negative impacts if their population expands beyond the carrying capacity of the land.

Storey County provides a habitat for both a resident population of mule deer as well as a wintering ground for some deer that summer around the Tahoe Basin. The Flowery Range-Upper Long Valley Creek area is a key deer wintering site, as is the western face of the Virginia Mountains in Washoe County. Regular seasonal migration routes include the Five Mile Flat area as well as the canyons between Gold Hill and Silver City.

Other notable large animals in the county include black bears, cougars, bobcats, and big horn sheep. A range of other non-game species live in Storey County including chipmunks, eagles, coyotes, and western diamondback rattlesnakes. See Appendix I of this master plan for a comprehensive list of fauna.

All of the county's fauna survive within a delicate framework of available water and food; the fauna are a critical piece of the county's fragile environment.

⁷ As defined in 40 CFR 230.3(s)



Figure 10.5-1: Wild Horses in Storey County

10.6 Goals, Policies, and Objectives

Goal 1: Decrease erosion and flooding risk and encourage water infiltration.

Policy	
Policy 1.1	Only slopes of less than 10 percent should be developed, unless engineered properly.

Policy	
Policy 1.2	Site development recommendations and requirements should consider slowing runoff flow to decrease erosion, minimize flooding, and encourage greater infiltration to recharge aquifers.

Policy	
Policy 1.3	Encourage landscaping to minimize erosion and increase infiltration.

Policy	
Policy 1.4:	Support large-scale planning and infrastructure projects to study, mitigate impacts, and respond to flooding events.

Objectives	
Objective 1.4-1	Consider County-led infrastructure projects to slow the flow of larger drainage canyons.
Objective 1.4-2	Continue to work with the Truckee Meadows Flood Management Authority, Federal Emergency Management Agency, State of Nevada Department of Emergency Management, and the Carson Water Subconservancy District on planning and funding flood modeling and mitigation projects.

Goal 2: Study and plan for the county’s existing water resources.

Policy	
Policy 2.1	Promote the intent and policies of the 2023 Storey County Water Resources Plan (Appendix B of this master plan).
Objectives	
Objective 2.1-1	Request the Nevada State Engineer continue to conduct hydraulic studies of the county’s water basins / aquifers (including in Mark Twain, the Highlands, and undeveloped areas in the northeast of the county) to determine quantity and quality of aquifers and assure aquifers are not being depleted beyond their recharging capabilities.
Objective 2.1-2	With local residents and development firms, investigate the feasibility of developing a unified water and sewer district for the River District.
Objective 2.1-3	Pursue a comprehensive water loss analysis or audit to confirm the primary contributor(s) to system non-revenue water and reduce this volume below 15 percent of all water purchased from the Marlette Water System.
Objective 2.1-4	Update the Water Resource Plan every 5 to 10 years.
Objective 2.1-5	Monitor the development of new regulations and determine whether they directly impact the county’s current water supply.

Policy	
Policy 2.2	Recognizing that groundwater resources are decreasing and groundwater and surface water are connected and both impacted by increased usage and potential climate change impacts, work towards incorporating currently unserved population centers into Storey County’s water system.
Objectives	
Objective 2.2-1	Pursue coordinated / conjunctive planning of use and management of surface water and groundwater resources to maximize the availability and reliability of water supplies.
Objective 2.2-2	Develop a water rights dedication rate system as discussed in the 2023 Water Resource Plan (see Appendix B).
Objective 2.2-3	Consider requiring a proposed fixture unit count for all non-residential developments be provided at the time of parcel map approval and/or building permit

	in order to evaluate available system capacity.
Objective 2.2-4	Provide education and guidance to private landowners that production from existing domestic wells in the Virginia Highlands is not sustainable and deepening of domestic wells is a cyclic, never-ending process.
Objective 2.2-5	Allocate annual budget and staff time to continue to participate in regional planning groups, like the Carson Water Subconservancy District and Truckee Meadows Water Authority Advisory Committee meetings or planning sessions to monitor best management practices for existing water rights.
Objective 2.2-6	Informed by the 2023 Water Resource Plan, develop and maintain additional infrastructure for storage, treatment, and delivery of water resources as needed to meet Storey County needs.

Goal 3: Protect Storey County’s water rights.

Policy	
Policy 3.1	Protect and maintain existing water rights / resources and related infrastructure.
Objectives	
Objective 3.1-1	Maintain the primacy of the Virginia City/Gold Hill water allotment allocated in the Franktown Water Decree.
Objective 3.1-2	Continue to maintain, replace, and upgrade segments of the Marlette Water System pipeline, as necessary (the system is discussed further in Chapter 9 – Public Services & Facilities).
Objective 3.1-3	Coordinate with the State Marlette Water System the return of American Flat to the Marlette/Virginia City Water System service area.
Objective 3.1-4	Plan for and preserve water right availability in the Marlette Water System for the buildout of existing parcels, potential expansion of new parcels, and land for Virginia City, Gold Hill, Silver City, and American Flat.
Objective 3.1-5	Regularly review and maintain conformance with the Storey County Water Resource Plan.

Policy	
Policy 3.2	Discourage exporting or selling off water rights from Storey County.
Objectives	

Objective 3.2-1	Actively participate on regional governmental water agencies to ensure the water rights of all owners and residents are protected.
Objective 3.2-2	Work with Lyon County to enter into an agreement which clearly defines Storey County’s responsibility to provide water service to future development in Silver City.
Objective 3.2-3	Request legislation, both at the county and state levels, to allow restriction or prevent water or water rights exportation to areas outside the county.

Policy	
Policy 3.3	Require new development, including planned unit developments and land divisions, to obtain and provide proof of owned water rights meeting safe drinking standards before land use or building permits are considered or approved.
Objectives	
Objective 3.3-1	Actively protest the granting of water rights or land development proposals which will have a negative impact on the quantity and/or quality of Storey County residents’ water supply.

Policy	
Policy 3.4	Establish a plan for the use of County-owned water rights in the River District emphasizing long-term benefits to the Lockwood and/or Mustang communities.

Goal 4: Protect the quality of water resources.

Policy	
Policy 4.1:	Follow the intent, policies, and implementation actions of the 2024 Community Source Water Protection Plan for the Storey County Water System.

Policy	
Policy 4.2:	Refuse special use permitting of industries which cannot guarantee the quality of effluent produced by their activity.

Policy	
Policy 4.3:	Require users of toxic or hazardous materials to provide monitoring capabilities to assure protection from surface and groundwater contamination.

Policy	
Policy 4.4	Promote the improvement of Storey County watersheds.
Objectives	
Objective 4.4-1	Regularly monitor water quality throughout the Marlette System (to the best of the Public Works department’s ability) by encouraging private well owners to send the County any water quality data to develop a database and monitor trends.
Objective 4.4-2	Engage in collaborative efforts with surrounding water quality and land conservation entities to implement watershed improvement programs within Long Valley Creek, Six Mile Canyon Seven Mile Canyon, Gold Canyon, American Flat, and area tributaries.

Goal 5: Protect wetlands, riparian habitat, and Waters of the United States.

Policy	
Policy 5.1	Wetlands, riparian habitat, and Waters of the United States should be protected from undue degradation. Undue degradation may result from over pumping of groundwater, destruction of vegetation for over-development or misplacement of recreational facilities, poorly planned land dispositions, unintentional misuse of riparian resources by public and private users, and other actions.

Policy	
Policy 5.2	Support a coordinated effort to protect wellhead protection areas and municipal watersheds from undue degradation through proactive zoning and development controls, pursuant to Storey County ordinances.

Goal 6: Encourage responsible and sustainable water use and conservation practices.

Policy	
Policy 6.1	Encourage area mining operations, agricultural operations, residences, and other land uses to implement water conservation practices.
Objectives	
Objective 6.1-1	Enhance local water conservation awareness.
Objective 6.1-2	Investigate County ordinance changes to require water conservation based on the 2021 Water Conservation Plan.

Policy	
Policy 6.2	Continue to encourage and require, when feasible, the use of recycled, treated effluent water for agricultural and recreational uses.
Objectives	
Objective 6.2-1	Establish the County's priority of right to the use of this water.

Policy	
Policy 6.3	Monitor and manage private groundwater use.
Objectives	
Objective 6.3-1	Continue development of the County's groundwater management plan.
Objective 6.3-2	Consider adoption of policy recommended in the 2023 Water Resource Plan, such as: "any new domestic well created through a land use change or parcel map process will be equipped with a meter to measure all water produced by the well." <ul style="list-style-type: none"> • The meter must comply with County specifications and provide electronic direct read transfer of data to County Public Works equipment. • The meters are to be used for quantifying the capacity of the limited aquifers in the county.

- The County may also use the meter data to enforce state limitations for the production of groundwater (2 acre-feet annually maximum) or any future restrictions to domestic groundwater production.

Goal 7: Encourage sustainable landscaping practices that conserve water and support native plant and animal life.

Policy	
Policy 7.1	Encourage xeriscaping techniques on landscaped public right-of-way areas, around public buildings, and in other public areas.

Policy	
Policy 7.2	In private developments, discourage landscaping which requires large amounts of water and encourage xeriscaping techniques.

Policy	
Policy 7.3	Encourage new developments to design with native animal and plant interests in mind to encourage their growth and leverage their benefits.

Goal 8: Prevent and manage the spread of invasive or noxious weeds in Storey County.

Policy	
Policy 8.1:	Combat the spread of noxious weeds by participating in collaborative noxious weed mitigation and management efforts.

Objectives	
Objective 8.1-1	Continue annual (and/or more frequent) coordination between the County, regional conservation organizations, and the Bureau of Land Management to share information, develop strategies, and plan implementation for noxious weed management.
Objective 8.1-2	Continue to collaborate with the Carson Water Subconservancy District and

	Washoe-Storey Conservation District to participate and provide funding for annual noxious weed management mitigation programs.
Objective 8.1-2	With the local and regional coordination group, identify other opportunities to fund noxious weed management as needed, including local funding and lobbying for additional federal and state funding.
Objective 8.1-3	Establish, implement, and enforce county codes and/or ordinances for noxious weed prevention and management.
Objective 8.1-4	Establish cooperative weed management areas to control invasive species.

Policy

Policy 8.2	Treat invasive species as soon as they are detected in the county and revegetate treated areas quickly, as proactive treatment costs much less than treatment of established populations.
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Objectives

Objective 8.2-1	Coordinate with federal and state agencies to also treat invasive species upon detection.
Objective 8.2-2	Institute a revegetation program to coordinate quick revegetation of: <ul style="list-style-type: none"> • Areas that have been treated for invasive or noxious weeds • Areas or corridors where the ground and vegetation have been disturbed for underground utility or pipeline projects • Other areas of surface disturbance

Policy

Policy 8.3	Support the Nevada Weed Free Certification program ⁸ for certified weed free forage, mulch, and gravel.
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Objectives

Objective 8.3-1	Consider requiring weed-free materials on all public lands in the county and ways to encourage their use for all producers and consumers.
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⁸ https://agri.nv.gov/Plant/Noxious_Weeds/Program_Noxious_Weed_Seed_Free_Certification_Program_Overview/

Policy	
Policy 8.4	Promote public awareness to prevent additional spread of invasive or noxious weeds.
Objectives	
Objective 8.4-1	Support the education of off-highway-vehicle operators, hikers, and other recreationists about the hazard of transporting weeds from infested to non-infested areas.

Goal 9: Regulate use of open-range and watershed areas to minimize fire danger and prevent degradation.

Policy	
Policy 9.1	Preserve open space within Storey County.
Objectives	
Objective 9.1-1	Assist property owners and interested groups in controlling grazing and public use of critical watershed and riparian areas.
Objective 9.1-2	Maintain grazing animals in numbers which will not exceed capacity of the land.
Objective 9.1-3	As of 2023, the Department of Wildlife is included in subdivision reviews. Work with the Department to require open space integration into planned unit developments and other new development areas when practical and feasible.

Goal 10: Monitor and protect a diversity of wildlife species in Storey County.

Policy	
Policy 10.1	Monitor the condition of wildlife populations and their habitats in Storey County.
Objectives	
Objective 10.1-1	Request that federal and state agencies provide periodic updates to the County Board of Commissioners regarding current and potential threatened and endangered species in the county area.
Objective 10.1-2	Identify habitat needs for wildlife species (e.g., adequate forage, water, cover) and ways for relevant agencies to support the provision of those needs, such as through habitat restoration, to help restore and maintain appropriate wildlife population levels.

Policy	
Policy 10.2	Support hunting and fishing as recreational resources on public lands, such as through the State’s programs to provide sustained levels of game animals.

Policy	
Policy 10.3	Migratory corridor integration is to be considered for the purposes of protecting the diversity of wildlife, reducing wildlife conflicts in developed areas, and reducing the prevalence of vehicle-wildlife collisions. The County should coordinate with the Department of Wildlife on this issue.
Objectives	
Objective 10.3-1	In coordination with the Department of Wildlife, align open space corridors in planned unit developments, and other developments where possible, with known migratory corridors.

Goal 11: Support Bureau of Land Management and State management of wild horses at population levels that protect the county's diverse ecosystems and avoid potential harmful impacts such as overgrazing.

Policy	
Policy 11.1	Storey County supports a strict policy of wild horse population control to ensure the species does not interfere with other wildlife, the economic viability of private enterprise such as ranching, other multiple uses, and the safety of those who must travel on routes through open-range.
Objectives	
Objective 11.1-1	Coordinate with the Bureau of Land Management and the State agencies to work cooperatively on wild horse management issues including establishing and maintaining Appropriate Management Levels for wild horse herds, in coordination with the Bureau of Land Management Resource Advisory Council, the County, and public involvement.
Objective 11.1-2	Request that the Bureau of Land Management take advantage of good forage years by emphasizing maintenance level captures on horse management areas that have established Appropriate Management Levels.

Policy	
Policy 11.2	Support resource enhancement where needed to correct damage caused by wild horses.

Policy	
Policy 11.3	Support programs to attract wild horses away from populated areas, highways, and other hazardous areas and toward wildlands.

Policy
Policy 11.4: Support visitor interest in and safe viewing of wild horses.
Objectives
Objective 11.4-1 Publicize and encourage areas where the public can view wild horses.
Objective 11.4-2 Educate the public and visitors about not feeding, watering, interacting with, or harassing wild horses.

Goal 12: Maintain good air quality in Storey County.

Policy
Policy 12.1 Air quality shall be maintained with a balanced approach that allows some commercial and population growth without a detriment to the social, aesthetic, cultural, economic, and ecological values of the County.
Objectives
Objective 12.1-1 Encourage the Nevada Division of Environmental Protection to continue air quality monitoring at its stations in the county.
Objective 12.1-2 Work with the Nevada Division of Environmental Protection and other relevant agencies to regulate air quality based on best available measurement and control methods.

Policy
Policy 12.2 Energy generation proposals, including renewable and non-renewable, shall be subject to state and federal emissions regulations: <ul style="list-style-type: none"> • All non-renewable energy generation proposals shall attain the lowest feasible emissions, the highest feasible efficiencies, and the highest possible ratings using Best Available Control Technology as required by the Nevada Division of Environmental Protection. • Any renewable energy generation proposal, such as biomass, that could affect air quality shall also have the lowest feasible emissions and highest possible ratings using Best Available Control Technology as required by the Nevada Division of Environmental Protection.

Policy

Policy 12.3 Renewable energy generation through solar or wind are encouraged due to their minimal negative impact to air quality as required by the applicable State or Federal regulatory agency

Policy

Policy 12.4 New industrial or other potential large-scale sources of greenhouse gases or other air pollutants shall be evaluated for impacts on air quality according to state and federal regulations. This is applicable to uses including:

- Factories or other industrial uses
- Large-scale commercial uses
- Large-scale agricultural uses with potential negative impacts air quality.

Policy

Policy 12.5 Proposed new construction projects that require access to public land, including but not limited to energy transmission line corridors, communication line corridors, or water rights applications associated with any pipeline projects, should require comprehensive air quality measuring and monitoring programs in accordance with state and federal requirements.

Policy

Policy 12.6 If PM10 (≤ 10 -micron particle size) levels significantly increase above historical levels or allowable limits, an immediate re-vegetation project is necessary to stabilize the surface of any areas (excluding service roads) where vegetation was changed because of the project.

Policy

Policy 12.7 When practical, significant land disturbance areas shall be revegetated with native species to reduce wind erosion and/or fugitive dust, including:

- Significant areas of land disturbances associated with projects that are abandoned.
- Agricultural fields that are to be abandoned.

CHAPTER 11

Cultural & Historic Resources



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11.1 Chapter Introduction

Storey County has experienced significant change over time, and the county's history is reflected through preserved buildings and other historic, archaeological, and cultural resources. These elements of the county's history help illustrate the social, economic, and political climate of the area over time, for both residents and visitors.

Historic preservation of the county's cultural resources supports economic development, building on local assets to improve the overall economy of the community. This chapter of the master plan identifies strategies for identifying and protecting historic resources in the community that contribute to local identity and economic development opportunities in the Gold Hill and Virginia City area and throughout the county.

This chapter is intended to be used as a tool for elected and appointed community leaders, and the community-at-large, for evaluating issues and making decisions regarding the location and design of land uses in areas where cultural resources may be impacted. Key cultural resources in Storey County include:

- Comstock Historic District
- Lagomarsino Petroglyphs Site
- Historic structures and sites outside the Comstock Historic District.

Cultural resources also include, but are not limited to:

- Historic townships (including the townships of Virginia City and Gold Hill), structures, and natural and manmade landscapes within the boundaries of the Virginia City National Historic Landmark.
- Historic roads, trails, highways, and associated buildings
- Railways, sidings, and stations
- Racetracks
- Mining camps and districts, historic mine portals, shaft openings, and workings (with safety mitigation)
- Cemeteries and isolated gravesites
- Villages, campsites, and other sites from Indigenous groups in the area prior to contact with Euro-American mining settlers (sometimes referenced as “prehistoric” or “pre-contact”)
- Rock art sites
- Rock shelters, caves, and caverns
- Tool-stone sources and quarries
- Less tangible resources including dance forms, customary beliefs, material traits of a group, and integrated patterns of human behavior passed to succeeding generations by stories and traditions

Through the preservation of cultural resources, Storey County will protect regional heritage while also

promoting compatible development including local business growth and tourism. Some actions that will help accomplish these goals are:

- Collaboration with the State Historic Preservation Office to update and expand upon the existing inventory of all historic buildings and sites inside and outside of the Comstock Historic District
- Advance county development design guidelines for new construction and renovation, major landscapes, streetscapes, parking lots, and other developments that are consistent with, but expand upon, Comstock Historic District design standards
- Prioritize properties in need of protection and develop programs to do so.

11.2 Brief History of Storey County

11.2.1 Early Mining History

The unprecedented wealth of the Comstock Lode helped shape Virginia City and Storey County. Virginia City was established in 1859 after the discovery of the Comstock Lode, and it soon became one of the most famous mining camps in the world. The mining camp was named in honor of James "Old Virginny" Finney by the early prospectors because of his discovery and knowledge of placer deposits below what would later be the Ophir Mine and his location of the first mining claim in the Comstock area.

In 1859, Virginia City had an estimated population of 200 to 300 people. After discovery of the Comstock Lode, word spread across the nation. By the 1860s, nearly 10,000 people rushed to the Comstock area, many from the California goldfields. By 1863, mining successes and promotion brought the Virginia City and area population to some 15,000 people. Significant historic milestones of this time include:

- The political ramifications of the Comstock Lode resulted in the creation of the Territory of Nevada, carved from the Territory of Utah, by the Organic Act signed by President Buchanan on March 2, 1861 (U.S. Statutes at Large, 1863, v. 12, pp. 209-214).
- Samuel Clemens arrived in late 1862, worked as a reporter for the Territorial Enterprise for 21 months, and left the area under his penname "Mark Twain."
- During the early 1860s, construction of the old Geiger Grade Toll Road was started and in partial use by the end of the same year. This road linked Virginia City with emigrant trails and supply routes that crossed the Truckee River at the site that would become Reno in 1868.
- Organization of the San Francisco Stock Exchange Board, the first mining exchange in the United States, occurred in 1862.
- The Comstock Lode brought enough money and politicians to the area to promote statehood. Despite the Territory of Nevada not having sufficient population for statehood eligibility, it was admitted to the Union as the 36th state by the Enabling Act signed by President Abraham Lincoln on October 31, 1864.

The Comstock Lode helped finance the Union during the Civil War and contributed to the building of the city of San Francisco. Homes, businesses, and office blocks were built, and gas- and sewer pipelines were installed in the principal main streets. Daily stagecoaches brought in all the luxuries of the San Francisco area. Seventy-five stamp-amalgamation mills were operating in the region: 19 in Virginia City and in Six Mile Canyon and Seven Mile Canyon below; 35 in Gold Canyon from Gold Hill to Dayton; 12 on the Carson River; and nine in Washoe Valley.

A significant economic recession occurred in 1865, resulting in a population decrease to approximately 4,000 people. However, Virginia City's population gradually increased to about 11,000 people by 1868.

- In 1869, the Yellow Jacket Mine fire occurred.
- 1869 also brought the construction of the Virginia & Truckee Railroad between Virginia City and Carson City. By August 24, 1872, the railroad connected to the Central Pacific Railroad, thus ending the wagon freight business over the Sierra and to Virginia City.

Mining operations and population increases in Virginia City and Gold Hill between 1869 and 1870 exhausted local water resources. In 1870, plans were made to bring water to the Comstock area from Marlette Lake, high in the Sierra near Lake Tahoe, down the east slope of the Sierra, and across Washoe Valley using an inverted siphon system. This was completed in August 1873 and, now modernized, is the source of Virginia City's water today.

Between 1873 and 1874, the population of the area exploded to 25,000 people in Virginia City and 5,000 people in Gold Hill as the result of the discovery of the Bonanza ore body in the Consolidated-Virginia Mine and extending into the California Mine. A fire (allegedly started from a woodstove) destroyed most of Virginia City on October 26, 1875, burning an area of about one square mile. Regardless, during 1876 post-fire reconstruction, Virginia City supported a regional population of approximately 23,000. Virginia City's population primarily consisted of Irish settlers, while Cornish settlers made up the majority of the Gold Hill population.

The third line of vertical shafts were being sunk east of town (evidence by the large mine dumps) to intersect the Comstock Lode at depths of 2,500 to 4,500 feet. Of the 135 Comstock mines quoted in the San Francisco Stock Exchanges in 1876, only three, the Consolidated-Virginia, the California, and the Belcher were paying dividends. The others were levying assessments.

The decline of Virginia City began in 1877 as hard times hit the Comstock area and discoveries were made in other mining districts in Nevada and California. In 1880, there were about 11,000 people and 1,200 buildings in Virginia City. Most of the mines closed after the Panic of 1893, an economic recession which lasted until 1897. By 1900, the population of Virginia City had dwindled to 2,700 people and continued downward to about 500 people by 1930. In 1980, the U.S. Census Bureau reported 1,503 people living in Storey County overall.

As an epilogue, it may be said that the Comstock Lode produced 29 millionaires in an environment where more than 1,000 mining companies were formed, of which only 19 ever paid dividends. More money was lost in the essentially unregulated stock market through assessments and stock manipulations than was ever produced in gold and silver.



Figure 11.2-1: Late Nineteenth Century Gold Hill, circa 1875

11.2.2 Early Twentieth Century Mining and Economic Conditions

The economy of Storey County and the Comstock area has historically been directly and indirectly linked to mining. Without the unprecedented richness of the gold and silver contained in the Comstock Lode and the ability of early miners to develop the deposits, there is no reason that accounts for the existence of the present towns of Virginia City and Gold Hill. During the initial mining period, other economic activities within the county, including agriculture, construction, finance, and transportation were dependent upon the local market fostered by mining.

The perceived stability of the mining industry, a large metropolitan population in nearby California, and high transportation costs to other contemporary industrial centers resulted in the development and diversification of the Comstock area economy during the 1860s. Many of the industrial products needed by the mining industry and consumer goods required by the general population were soon supplied by local firms.

Because of the nature and depth of the ore in parts of the Comstock Lode, existing technologies were refined and new technologies developed. Among the more significant of these developments were: square-set timbering to support the walls and ceilings of underground slopes; the Marlette Water System which incorporated a seven-mile inverted siphon to bring water from the Sierra Nevada to the Comstock area; the construction of the Virginia & Truckee Railroad; the 3.5-mile Sutro Tunnel which drained the Virginia City mines to the 1,600 foot level; the development and improvement of hydraulic pumps and elevators; and the refinement and invention of various ore milling processes and equipment. These developments were on the cutting edge of mid-nineteenth century technology.

With the exception of small-scale ranching, quarrying, and power generation along the county's northern border near the Truckee River, Storey County's economic well-being remained firmly linked to the health of the mining industry. By 1933, the average price of an ounce of gold increased from \$0.30 per ounce to \$0.64 per ounce, and silver from \$0.25 per ounce to \$0.36 per ounce. The spike in monetary value for these commodities correlated to an increase in mining activities throughout Nevada and the Comstock area.

By the mid-1930s, numerous mines reopened, and a period of steady growth ensued which economically benefitted the Comstock region. New ore processing mills were built which employed modern cyanide extraction technology. The main connecting roads to both Reno and Carson City were paved. However, these transportation improvements also contributed to the demise of the Comstock area's only railroad link, the 60-year-old Virginia & Truckee Railroad. The original function of the Virginia & Truckee Railroad was to provide inexpensive transport of ore to the processing mills on the Carson River ten miles away. With new ore processing mills located in the Comstock area, and alternative transportation opportunities offered by the newly paved highways, the Virginia & Truckee Railroad was forced to close its Virginia City line in 1938.

Unlike the relationship between extracted Comstock ore and Civil War financing which existed in the nineteenth century, mining in the Comstock area had no contribution to U.S. involvement in World War II. During this time, the War Production Board Order L-208 restricted "production of non-essential mines," including gold and silver operations. Although several mines and mills operated for a short period after World War II, this order effectively shut down Comstock mining operations until the government allowed the price of gold to be dictated by market demand in the mid-1970s. Several mining operations which started up after Order L-208 was rescinded in 1947 were unsuccessful due to substantially increased labor costs and production machinery shortages.

11.2.3 Contemporary Economic Transformation

During the 1950s and 1960s, the economy of Storey County shifted from mining and industry to tourism and gaming. The television show *Bonanza* was a significant contributor to the Comstock area's transformation to a tourism-based economy. Virginia City was depicted in the popular and long-running television series as being located a short wagon-ride away from the Cartwright Ranch in the majestic pines at Lake Tahoe. Notwithstanding the facts that the Comstock Lode is two mountain ranges away and over 35 miles by road, tourists began to flock to Virginia City looking for evidence of the Cartwright family and the town depicted in the series.

In 1973, new episodes of the television show were discontinued from programming, and consequently, the benefits of tourism that Virginia City and Gold Hill had experienced as a result of the series began to decline almost immediately. Exacerbating the economic decline of the Comstock area, especially since the 1990s, was the ever-declining number of tourists visiting Reno and Lake Tahoe casinos. With gaming in California and other states becoming legal and highly competitive to Nevada, the economic benefits provided to Virginia City and Gold Hill by the "spill-over" declined sharply, and this condition remains today.

The Bonanza Cafe (Figure 11.2-2) is a classic example of 1960s architecture exemplifying the "Myth of the American West," as largely depicted in the television show *Bonanza*. According to the Comstock Historic District, the architecture for this building, and others like it, may be considered of contemporary historic importance with regard to demonstrating the mid-twentieth century misrepresentation of the American West.

Considerable effort has been made in the past three decades by both local government agencies and private businesses to sustain the tourism economy in the Comstock area. Significant adaptations to the changing economic parameters have been made over the past decade, and continue today, to capitalize on the mystique of Virginia City during the heyday of the Comstock Lode including the wide-spread promotion of events such as the Camel Races, Firefighters' Musters, Halloween and Christmas on the

Comstock, Street Vibrations, Chili cook-offs, Mountain Oyster Fries, Outhouse Races, and numerous other events.



Figure 11.2-2: Promotional image for *Bonanza* and the Bonanza Cafe. (Source: Bert Bedeau, Comstock Historic District Commission Director, 2014)

During the summer of 2009, the Comstock area began to reap the benefits of a collaborative effort between Storey County, Carson City, and several private enterprises to restore the Virginia & Truckee Railroad from Virginia City to Carson City. The reintroduced inter-local rail line was an instant popular attraction for area residents and those visiting from other states and abroad. Tickets during the first season were sold out soon after becoming available, and today the collaborative effort continues in order to maintain maximum ridership. Virginia City continues to be a year-round international tourist attraction with a population of approximately 918 people (according to the Nevada governor’s 2022 certified estimate – for additional population information, see Chapter 5 – Population).

In more recent years, Storey County has benefitted from a more diversified economy. In 2000, the Tahoe-Reno Industrial Center was established at McCarran between Lockwood and Painted Rock. Since then, Storey County has grown to compete with Reno, Sparks, and Fernley in warehousing, distributing, and manufacturing industries, including specialized high-tech manufacturing, research-and-development, and “cloud-based” data management with companies like Tesla, Switch, and Google. Development for manufacturing and technology is expected to continue in the industrial area of the county, as discussed further in Chapter 7 – Economic Development. Economic growth can help bring more opportunities and investment to other areas of the county and benefit the preservation of historic, archaeological, and cultural resources in the county.

11.3 Historic Preservation

11.3.1 Policy Framework

The National Historic Preservation Act was codified in Title 16 of the United States Code in 1966 to address the importance of saving cultural resources as a living part of any community in the United States. The National Historic Preservation Act (Act) authorized the National Park Service, under the aegis of the Secretary of the Interior, to create and update the National Register of Historic Places. The Act also requires the appointment of State Historic Preservation Officers, the foundation and oversight of the Historic Preservation Fund, and the development and institution of federal, state, and tribal historic preservation program regulations, standards, and guidelines.

A well-known product of the National Historic Preservation Act is the National Register of Historic Places (National Register). The National Register is an inventory of districts, sites, buildings, structures, and objects significant to the history of the American social landscape. Designated items characterize or are themselves noteworthy milestones or achievements in architecture, archaeology, engineering, or culture to the United States or the state or local community in which they are located. Historic properties listed in the National Register are eligible for certain state and federal regulatory protections, financial assistance, and tax benefits. To be registered, a property must fulfill one or more of the following criteria:

- Criterion A: Be associated with historic events or activities
- Criterion B: Be associated with important persons
- Criterion C: Possess distinctive design or physical characteristics
- Criterion D: Possess potential to provide important information about prehistory or history.

In addition to fulfilling one or more of the criteria above, the property must also demonstrate integrity. Integrity is the ability of the property to convey its significance. A historic property will typically retain all or most of its aspects of integrity. However, one or more aspects may be integral in conveying the significance of a property while others are less so. It is essential to identify which aspects of integrity are the most important in assessing the property's integrity. The seven aspects of integrity are:

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling
- Association.

U.S. Department of Interior staff may select from the National Register certain properties to be designated National Historic Landmarks. These chosen sites, in addition to the requirements for the National Register are, according to the Department of Interior, of “transcendent importance” to the history and development of the United States.

The National Historic Preservation Act also allows the award of grant funds for historic preservation and requires the appointment of State Historic Preservation Officers. Officers are assigned to distribute federal grant funds for the purpose of conducting comprehensive statewide surveys of historic structures and sites, recording and rehabilitating historic structures, and preparing comprehensive preservation plans. In Nevada, the policies are carried out under the Nevada State Historic Preservation Office.

11.3.2 Storey County Preservation Background

Because of the historical significance of the Comstock Lode, preservation efforts in the Virginia City area began in the 1940s. Local residents established preservation boards and attempted to acquire bonds for restoration of the town proper.

In 1961, the U.S. Secretary of the Interior designated the Virginia City National Historic Landmark under the Historic Sites Act of 1935. When the National Historic Preservation Act was passed in 1966, the Virginia City National Historic Landmark was listed in the National Register. The designation of the Virginia City National Historic Landmark today remains a federal designation with federal laws and regulations administered by the National Park Service.

The Virginia City Historic District Act was established by the Nevada Legislature in 1969 and amended in 1971 to become the Comstock Historic District Act (Nevada Revised Statute [NRS] 384), with applicability throughout the Comstock area, including areas in and around Virginia City, Gold Hill, Silver City, Dayton, Sutro, and the Highlands. In 1981, the Comstock Act was again amended to prohibit permanent placement of trailers, mobile homes, and recreational vehicles in the Comstock Historic District. In 1990, the boundaries of the Comstock Historic District were refined, and outlying properties with nominal or no significant historic integrity or applicability to the Comstock area, including the Highlands, were categorically excluded from certain strict regulations of NRS 384. The Comstock Historic District currently encompasses approximately 28,120 acres (see Figure 11.4-3 Comstock Historic District Boundary map).

The Comstock Historic District Commission was established pursuant to NRS 384 to promote the preservation and knowledge of the cultural resources of the Comstock Historic District. For example, as part of its assigned duties, the provides specific information for property owners regarding the maintenance, rehabilitation, stabilization, and restoration of historic structures within the historic district, and it encourages property owners of commercial buildings to use federal tax-credit programs. The Comstock Historic District Commission is also charged with reviewing all permits for structures to be erected, reconstructed, altered, restored, moved or demolished within the historic district boundaries. Persons who wish to do such work must obtain a Certificate of Historic and Architectural Appropriateness from the Historic District Commission (or its director designee), prior to commencing work. NRS 384 establishes the definition, board make-up, functions, and powers under which the Comstock Historic District Commission operates.

In its review process, the Historic District Commission determines whether the proposed action is appropriate to "the interests of the historic district and congruous with the aspects of the surrounding historic environment of the district" (NRS 384.10). The criteria considered by the Historic District Commission in evaluating applications for Certificates of Historical and Architectural Appropriateness include the following:

- Historic and architectural value and significance
- Architectural style
- Location of the subject lot
- Position of the structure in relation to a public way and visibility from a public place
- General design, arrangement, texture, material, color and size of the exterior architectural

features and the relationship of building to others in the neighborhood

- Relation of a structure's exterior architectural features to the recognized styles of early western architecture of the late nineteenth and early twentieth centuries.

All major applications are reviewed in an open public meeting, allowing for public input. The Comstock Historic District Commission also provides free brochures and other literature on construction standards and design guidelines for the district.

The Comstock Historic District Commission has a staff, which is responsible for:

- Reviewing certain exterior changes to buildings/structures which do not necessarily require commission review. Staff reserves the right to refer any project to the Comstock Historic District Commission for review.
- Making recommendations to the Historic District Commission on agenda items
- Establishing agendas for the monthly meetings
- Maintaining the official records of the Historic District.
- Developing education programs for the area
- Assisting other agencies with preservation projects.

Other functions provided for in NRS 384 include the establishment and maintenance of an office, which houses a historic resources library and the official records of the Comstock Historic District Commission. The office provides a location where people can review proposed projects with staff. The Comstock Historic District Commission is also charged with monitoring the district for violations of any of the provisions of NRS 384.

The Historic District Commission and the Storey County Commissioners have developed permit review guidelines which minimize conflicts. In particular, a building project must have prior approval by the Historic District Commission before the County Building Department will issue a building permit.

11.3.3 Resource Inventory History

Photographic inventories of buildings, historic and prehistoric sites, and other resources within the Comstock Historic District have been undertaken since the 1939 Historic American Building Survey. Most of these efforts have been focused on architectural resources in and around Virginia City and Gold Hill, since they are perceived to be the most prominent cultural elements in the Comstock area and in Storey County. A partial inventory of buildings in the Comstock area was also conducted by Heather Hallenberg in 1979. The inventory led to the establishment of new construction and rehabilitation project design guidelines for Comstock Historic buildings.

The first comprehensive inventory of historic buildings and structures, known as the Historic American Engineering Record inventory, was undertaken in 1980 by the U.S. Department of the Interior Heritage Conservation and Recreation Service. The resulting work constitutes an important resource for the Comstock Historic District Commission in making decisions concerning the conservation of historic buildings. The project also provided initial archaeological and economic

planning studies, walking and driving tour guides, and further developed design guidelines for buildings and their environment in the historic district.

Allan T. Comp and his associates also conducted a survey and inventory of buildings and structures in the 1980s. This survey, known as "Project 85," constitutes a total survey of all buildings within the town of Virginia City as of September 1985. Gold Hill, the Divide between Virginia City and Gold Hill, Silver City, and Dayton were surveyed as part of the project in 1987. This project also proposed a cultural resources management plan and pointed toward the development of the Virginia City Tourism Authority (now the Virginia City Tourism Commission) to encourage cultural tourism as a means to enhance public understanding and appreciation for area historic resources. The 1987 survey information led to an amendment of the Virginia City National Historic Landmark nomination on file at the National Register in Washington D.C. Due to the survey, the period of historic structure significance recognized by the Historic District was extended to resources within its jurisdiction existing on or before 1942.

In response to a request by the Storey County Board of Commissioners, Archaeological Research Services, Inc. contracted with the County to perform archival and field studies. Prepared by archaeologist Ronald L. Reno and published in 1990, the "Sensitivity Study of the Storey County Portion of the Comstock Historic District" (i.e., 1990 Sensitivity Study, included with this master plan as Appendix C) contains findings, summary and discussion of previous planning recommendations, an outline of an archaeological mitigation plan, and an archaeological inventory of Cottonwood Spring and vicinity (approximately six miles north of Virginia City). The report also contains five sensitivity maps designed to depict location and potential significance of landscape, historic archaeological, prehistoric archaeological, architectural, and mineral resources.

The Storey County Board of Commissioners, Planning Commission, and planning staff have used these sensitivity maps from the 1990 Sensitivity Study in evaluating architectural changes, construction, and regulations within the historic district.

11.3.4 Key Preservation Issues

11.3.4.1 Education and Awareness

The preservation of historic and prehistoric resources, including within and outside of the Comstock Historic, is important to the character and heritage of Storey County and its culture. Cultural resources provide focal points which help shape the identity of the area and its people. The history of Storey County provides opportunity for tourism, business, education, and cultural awareness. To capitalized on valuable resources, and protect them from further degradation, it is important that information about local historic, archaeological, and cultural resources is conveyed to residents, businesses, and visitors through general communication and public outreach; local school curriculum; authentically themed tourism attractions; preservation of buildings, structures, and natural and manmade landscapes (e.g., mine tailings and dumps); and the preservation of overall historic community design and layout.

11.3.4.2 Encouraging Preservation

Because historic resources can enrich the identity and character of the county, it is important that Storey County exercises leadership and coordinates with existing historic preservation groups to encourage cultural resources preservation. New land development should be compatible with the

historic character of the surrounding area. Cooperation between government entities and private organizations involved in historic preservation is critical in the ongoing preservation of valuable historic, archaeological, and cultural resources.

11.4 Mining Uses

11.4.1 Mine Sites Data

Data on mine sites has been obtained from current sources available from the Mackay School of Mines Library at the University of Nevada, Reno and United States Geological Survey topographic quadrangle maps. When dealing with specific land use proposals, planning officials should consult the Storey County possessory and patented claim maps available in the Storey County Assessor's Office.

11.4.2 Active and Abandoned Mines

Active mines are those that indicated activity as of 1988. A total of nine active mines are indicated in Storey County by this measurement. Inactive (abandoned) or “status-not-indicated” mines may be reopened and worked depending upon factors which affect the ability of the mine owner to bring the mine into production. Approximately 47 inactive or status-not-indicated mines are in this category. Hazardous conditions exist at abandoned mines throughout Nevada and Storey County, and they pose a significant risk to human and animal safety. Hazardous features include, but are not limited to, shafts, adits (horizontal openings), open pits, high-walls, and stopes.

Nevada State law requires owners of abandoned mines to prevent access with fencing or otherwise safeguard mine workings. The Nevada Division of Minerals (Division) is legislatively mandated to follow the State’s Abandoned Mine Lands program to identify inactive mines, rank their degree of hazard, and carry out activities to secure these sites, be it through owners of the abandoned mines or Division staff. The Division also conducts extensive public awareness and educational campaigns focused on the hazards in and around abandoned mines.

This master plan emphasizes the importance of mitigating safety hazards of abandoned mines, while also recognizing the value that mining remnants bring to maintaining the historic integrity of the Comstock area. Methods for abating hazards of abandoned mines should emphasize use of gates, fences, bat-cupolas, and other means to block public access, while leaving remnants of the mining activity intact for safe public viewing.

Figure 11.4-1: Relocation and Preservation of the Keystone Mine Headframe

The Keystone Mine head frame had nearly collapsed at its original location in Gold Hill (top) before it was acquired by Storey County, and restored and relocated to its new home at the North Virginia City Visitors Center (right).

11.4.3 Mining within the Virginia City National Historic Landmark

Considerable concern has been expressed by residents, businesses, and historic preservationists regarding the impact of modern surface mining on existing cultural resources.

The Comstock Historic District Commission’s area of responsibility is limited to review and approval of exterior architectural features of buildings and other structures. The Historic District has no regulatory jurisdiction over the use, alteration, or degradation of natural and man-made landforms and landscapes that contribute to the authenticity of historic communities and their surrounding environment. Additionally, the Historic District and the County may have limited regulatory jurisdiction on uses occurring on federally owned lands, including those within the historic district.

Regardless of local and state jurisdictional constraints, efforts to preserve the distinct character of the Comstock area should not be solely focused on buildings and structures. Landscapes and landforms, including natural monuments, and historic mine dumps and tailings should also be protected as practicable to preserve the historic integrity of the Comstock area. While recognizing the rights of private property owners, natural and cultural resources should be protected from new uses that substantially alter or degrade important features of the Comstock Historic District.

The 1990 Sensitivity Study describes the pattern of continued degradation from mining that “has intensified the destruction of archaeological sites” throughout Gold Hill, Virginia City, and their surrounding areas. Later County Master Plans in 1994 and 2016 included policies to protect cultural

resources, based on the 1990 Sensitivity Study. Recent mine development plans have included cultural resource surveys, protection and preservation of buildings and sites, and mitigation of negative impacts where disturbance is unavoidable.

11.4.4 Mining and Land Use Regulations

Through local land use decisions, County leaders can prioritize preserving the distinctive historic character throughout the Comstock area, including certain landscape features identified in Chapter 3 – Land Use. County officials should continue to work with landowners, residents, businesses, and where applicable the Bureau of Land Management (as discussed further in Chapter 4 – Public Lands), in considering regulations and/or incentive programs that allow appropriate development to occur while balancing preservation of key landmarks identified in this master plan.

In 2012, the Planning Commission and Storey County Board of Commissioners approved substantial modifications to the County’s zoning ordinance regulating surface- and underground mining (County Code Section 17.92). The ordinance was ratified after considering mining and non-mining interests, and consultation with attorneys, citizens of Storey County and neighboring Silver City (Lyon County), and various state and federal agencies through a series of public workshops over 18 months.

Stakeholders from different sides of the mining issue expressed to the Board of Commissioners, Planning Commission, and County planning staff their firm desire for the provisions and supporting findings of the mining ordinance to be embedded into the 2016 Master Plan. This master plan update also carries forward the same findings. Future amendments to mining regulations, and special use permits and other entitlements that apply to mining interests, should conform to these findings, which represent the unified interests of the community.

The County supports enhanced regulations on surface mining while partially deregulating underground and other mining activities believed to have nominal impacts on other uses and the integrity of the Virginia City National Historic Landmark (such as recreational uses). Regulatory provisions in the county should apply to exploration and mining of locatable metallic minerals such as gold and silver, and non-metallic natural resources such as limestone and gypsum. Such provisions should also be maintained for ancillary activities to exploration and mining.

The intent of this master plan is to:

- Recognize and protect both mineral and surface property rights, provide for mineral exploration, allow for surface mining where appropriate, and allow and encourage underground mining methods across the county.
- Ensure exploration and mining activities are consistent with the general purpose, goals, and objectives of this master plan and do not result in substantial adverse impacts to the adjacent residential and commercial uses, tourism, and local economy, natural resources (without appropriate mitigation), or other matters affecting the health, safety, and general welfare of the citizens of the county.

To balance different types of mining methods and allow the exploration and extraction of minerals in all parts of the county as allowed by certain property rights, the mining ordinance provides for a tiered structure of regulations based on classifications of mining activities, defined as follows:

1. **Recreational Use:** This classification includes recreational gold panning, sluicing activities, and “rock hounding” lasting a short duration of time. Recreational use exploration and mining should be allowed with a minimal level of regulation, as this activity typically causes little to no impact on the natural environment or surrounding land uses.
2. **Casual Use:** This classification includes surface and underground exploration and mining with the use of hand tools for a longer period of time than recreational use. The use of explosives and mechanized or motorized equipment is prohibited. Tools typically associated with casual use include picks, shovels, gold pans, sluice boxes, miner’s moss, wheelbarrows, ore carts, and other similar manually operated devices. Casual use exploration and mining should be allowed with a minimal level of regulation as this activity typically causes little to no impact on the natural environment or surrounding uses.
3. **Small Operations:** This classification includes surface and underground mining and exploration involving the use of mechanized or motorized equipment, or involving the use of explosives, but remaining less than the duration, excavation, and surface area disturbance thresholds at which a special use permit is required for large operations, or the limitations imposed on the restricted Comstock Historic Preservation Area, as shown in Figure 11.4-2. A combination or series of small operations permits or uses (e.g., serial or chain exploration or mining) that violate or serve to circumvent the letter and spirit of County Code Chapter 17.92 will not be permitted. This level of use should be regulated in accordance with the anticipated level impacts to the environment and surrounding land uses.
4. **Large Operations:** This classification includes surface- and underground exploration and mining meeting or exceeding the duration, excavation, or surface area disturbance thresholds requiring a special use permit. Large operations should be regulated in the most stringent manner, except as to not cause unreasonable restriction as to infringe upon existing mineral rights.
5. **Ancillary Uses:** When allowed by the provisions of County Code Section 17.92.090 and the underlying regulatory zone, certain ancillary uses which are incidental to the small operations or large operations exploration and mining may be made part of submitted permits. These ancillary uses could include beneficiation and processing, boarding accommodations, concrete batch plants, and the keeping of large domestic animals.

There are two historic preservation areas or district boundaries within the Comstock area of Storey County, each with separate jurisdictions that govern and regulations that apply, as depicted in Figure 11.4-2 and Figure 11.4-3 and as noted below:

- Figure 11.4-2 depicts the Comstock Historic Preservation Area, which dictates the area subject to special restrictions per Storey County’s mining ordinance adopted in 2012.
- Figure 11.4-3 shows the Comstock Historic District boundary, which includes areas within and outside Storey County. This area is subject to special requirements and reviews from the Comstock Historic District Commission. This map was originally adopted in 1972. As of the time of this County Master Plan update in 2024, the State Historic Preservation Office is working on a revision of this map that will remove the Virginia City Highlands.



Figure 11.4-2: Comstock Historic Preservation Area Map (2012)

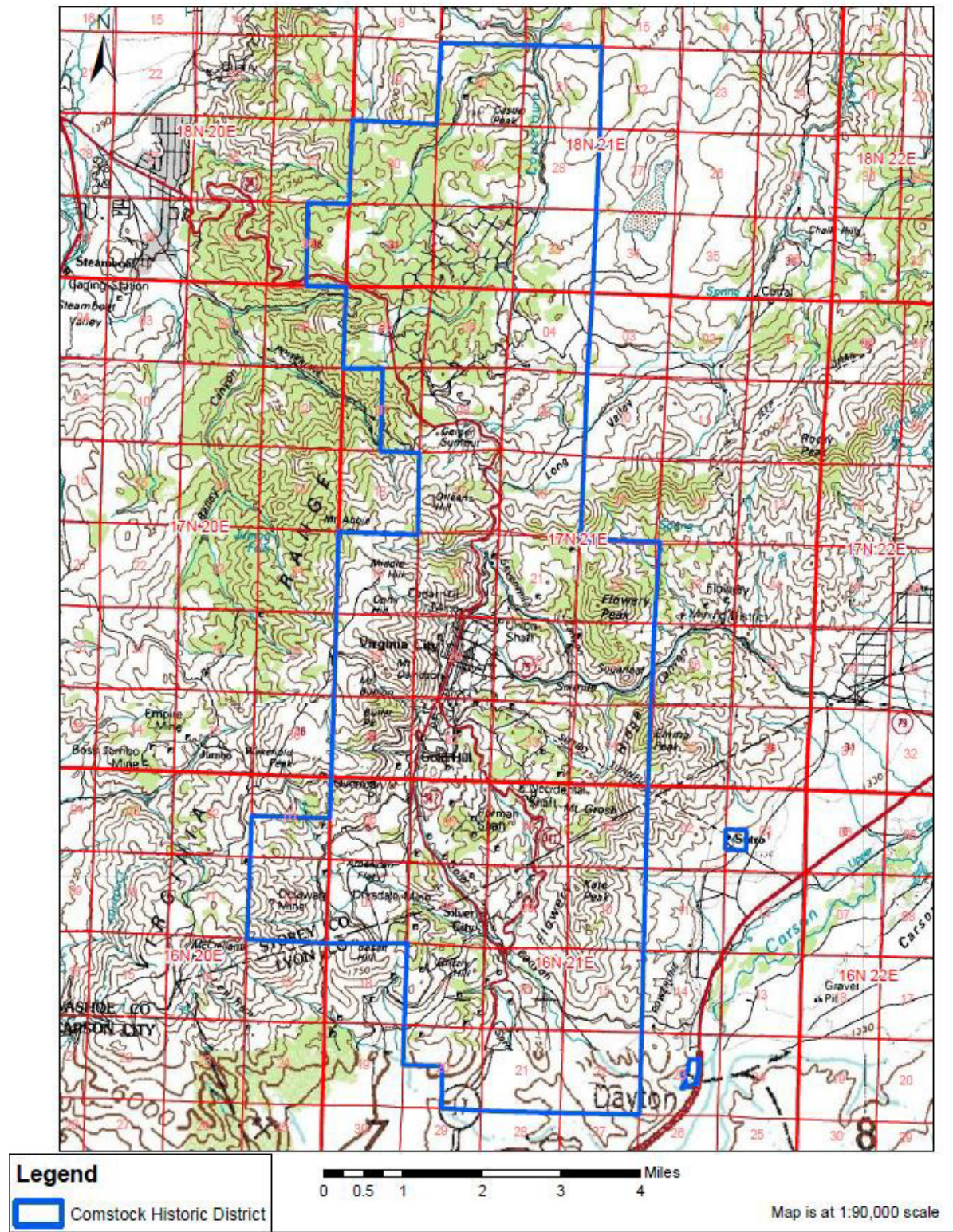


Figure 11.4-3: Comstock Historic District Jurisdictional Boundary Map (Source: Comstock Historic District, 2016)

The following findings should be included in any regulation of or approval for mining operations within the Comstock Historic District, and these findings should be the basis for which such operations are allowed, allowed with mitigating conditions, or denied:

1. Certain mineral and surface property rights exist across the county, and this master plan serves to protect those rights. This master plan recognizes and serves to abide by the Mining Law of 1872, which provides mineral property owners the right to mine where the property is a mine patent pursuant to Title 30 of the United States Code Section 29, or an unpatented mining claim located pursuant to Section 23, as well as the right to milling and ancillary uses necessary for the success of mining.
2. Storey County has a diversified economy including agriculture, commercial, industrial, tourism, recreation, and mining. Permitted uses under these categories are found to be economically and socially beneficial to Storey County, directly and indirectly, when they are appropriately regulated so that they do not cause substantial adverse impacts to adjacent uses and are not detrimental to the health, safety, and general welfare of the citizens, property owners, scholars, and businesses in the county.
3. This master plan serves to address and provide for regulations which mitigate potential adverse impacts that mining and related activities may have on the natural and historic environment and adjacent land uses (e.g., residential, commercial, tourism) as they now exist or as they may in the future be developed as a result of the implementation of the provisions and policies of this master plan, and any other plan, program, map, or ordinance adopted or under consideration, pursuant to an official notice by the County or other governmental agency having jurisdiction to guide growth and development.
4. This master plan supports that the existing historical environment, including natural and manmade features in and around the Virginia City National Historic Landmark, provides a sense of orientation and authentic place and feeling which is beneficial to residents, businesses, investors, visitors, scholars, and future generations. This plan emphasizes the importance of reducing land use conflicts between mining and other land uses and preserving the historic resources and heritage of the Comstock area for the enjoyment and education of present and future residents, visitors, and scholars, and the economic opportunities afforded. Present and future mining and its ancillary uses within the Comstock area, when conducted in a way to preserve and not cause substantial negative impacts to existing cultural resources, also contributes to the sense of orientation and authenticity of the historic mining area. The provisions of this master plan serve to consider certain mining proposals within the Virginia City National Historic Landmark while protecting its existing historic environment, including natural landscapes and manmade features.
5. Surface mining (e.g., open-pit mining) by its nature causes substantially greater impact to the surface environment than underground mining, and in some instances, precludes complete restoration of the affected land to a condition existing prior to the surface mine. Thus, unless appropriately mitigated through reclamation of land, surface mining has a greater potential for adverse impacts to adjacent land uses, the Virginia City National Historic Landmark, the tourism economy, and the health, safety, and general welfare of the citizens of the county. While the provisions under this chapter provide for surface mining under certain circumstances, underground mining methods are highly encouraged in all areas of the county,

including within the Virginia City National Historic Landmark, when conducted pursuant to the provisions of this chapter.

6. Areas surrounding State Routes 341 and 342 within the Virginia City National Historic Landmark are found to contain critical natural and manmade features which contribute to the historic integrity of Gold Hill and Virginia City. This area has been incorporated into the “Comstock Historic Preservation Area” map as depicted in Figure 11.4-2 and made part of this master plan.

Under certain circumstances and when regulated appropriately by local ordinance, mining and processing of existing historic mine dumps and tailings, including those located within the Virginia City National Historic Landmark, may be beneficial when the existing mine dumps and tailings contain Contaminates of Concern applicable to the Carson River Mercury Superfund Site and when appropriate measures are employed to preserve the historic significance of the manmade landscape features.

The regulations adopted in 2012 can also impact mining special use permits that were issued prior to the 2012 regulations if the older permits are amended. For example, in 2014, the new regulations were applied to a local mining company’s major special use permit amendment. A significant difference between the company’s previous and amended special use permit is the requirement that the company must post mine reclamation surety bonding that extends beyond the requirements of the Nevada Division of Environmental Protection and other applicable regulatory agencies.

Mining is expected to remain a significant consideration in Gold Hill and the surrounding Comstock area into the foreseeable future; and County officials will continually need to balance mining and non-mining interests and rights in the area.

11.5 Protecting Archaeological Sites

Data on archaeological sites, including historic and prehistoric sites, has been obtained from the Nevada State Museum and Bureau of Land Management. A total of 63 archaeological sites have been identified in Storey County. Most sites have been field checked for accuracy; however, locations of specific development proposals may warrant additional field or archival research to evaluate whether cultural resources could be affected by the proposed development actions.

Historic sites related to Euro-American settlement in Storey County include features and artifacts such as town sites, buildings and building sites, railroad structures, and abandoned mine sites.

Prehistoric sites are generally Indigenous in origin from the time prior to intrusion of Euro-American settlement. In Storey County, these sites include such features as rock art, camp sites, and sites containing lithics, bone, or other indications of land uses prior to the contact of European and Indigenous American cultures. These sites are protected by the National Historic Preservation Act, which prohibits the release of specific location site information in a public document.

11.5.1 Lagomarsino Petroglyphs

The Lagomarsino Petroglyphs Site is an 80-acre site toward the center of the county where an estimated 2,000 Indigenous prehistoric petroglyphs exist, stretching an area approximately one-quarter

mile in length with panels estimated to be 12,000 years old, according to 2012 information compiled by the Nevada Rock Art Foundation (Figure 11.5-1). The site is protected by the National Historic Preservation Act, so this master plan is intentionally absent of maps showing the precise location of the petroglyphs. The site is remote and challenging to access. However, the internet indicates increased awareness of the existence and location of the petroglyphs with resulting vandalism and theft becoming an increasing problem. Furthermore, development proposals within the interior of the county, such as for roadways, could encroach on the remote area of the petroglyphs and make them more accessible and therefore vulnerable.

For decades, Storey County, various volunteer organizations including the Nevada Rock Art Foundation, local residents, and other stakeholders have advocated to the State Historic Preservation Office and other state agencies to better protect the site, potentially by designating and managing the site as a state park with full-time supervision. However, local and state resources available to appropriately manage the site are limited at this time. County officials will continue to work with local residents and volunteer groups to voluntarily monitor the site while the County and various agencies continue to research and explore permanent solutions to protect this resource.

County staff recognize potential conflicts between preservation efforts and surrounding development proposals. Proposed land use projects could have a significant impact on this cultural resource, so County officials should seek counsel from the State Historic Preservation Office when considering proposals that could have direct and indirect negative effects on the petroglyphs.



Figure 11.5-1: Lagomarsino Canyon Petroglyphs Site (Source: Nevada Rock Art Foundation 2012)

11.5.2 Cottonwood Spring Archaeological Site

The 1990 Sensitivity Study discussed earlier in this chapter (included in Appendix C) contains a comprehensive inventory of archaeological resources in an area approximately four miles northeast of Virginia City, in and around Cottonwood Spring and Chalk Hills Ranch in Long Valley.

The study built upon previous cultural resource modeling conducted in 1975 by Elston and Rusco concerning the probable effects of the development of the Virginia City Highlands on existing area historic and prehistoric resources. The goals of the study were to refine previous modeling by analyzing existing artifacts in the area and mapping specific areas of cultural concern, and to survey areas of private land in the Highlands subject to future disturbance.

The 1990 Sensitivity Study contains recommendations to use study findings to develop reasonable measures by which to preserve archaeological resources on the private lands through incentives and other non-punitive measures.

11.5.3 Other Archaeological Sites

There may be other potential historic and prehistoric sites identified throughout the county that should be considered for further archaeological study as well as protective measures.

11.6 Goals, Policies, and Objectives

Goal 1: Foster historic preservation activities that respect the local community while also promoting economic development.

Policy	
Policy 1.1	The customs and culture associated with Indigenous people in Storey County is necessary to the livelihood and wellbeing of the present-day Indigenous and broader community within the county. Storey County supports the continuation of these Indigenous customs and culture.
Policy	
Policy 1.2	Tangible artifact remains and records of folk life and cultural heritage should be preserved locally rather than removed to out-of-county or out-of-state sites.
Objectives	
Objective 1.2-1	Protect cultural resources from threats including fire, vandalism, unauthorized use or removal, and rural and urban sprawl.
Objective 1.2-2	If local cultural resources are protected, encourage and manage citizen access to these cultural resources.

Policy	
Policy 1.3	The County supports conservation of historic properties, landscapes, and practices which use these features in a manner that does not degrade them for future generations.

Policy	
Policy 1.4	The County allows and promotes new commercial and residential development within the Comstock Historic District, provided it is balanced with the preservation of historic, archaeological, and cultural resources.

Objectives	
Objective 1.4-1	Collaborate with historic preservation groups such as the Comstock Historic District Commission.
Objective 1.4-2	Enforce design requirements for developments and community improvements to complement the surrounding historic environment.
Objective 1.4-3	Encourage adaptive reuse and integration of historic properties into new projects where possible and appropriate.

Policy	
Policy 1.5	Where practicable, the historic character of buildings, sidewalk, utilities, and other improvements and structures within the Comstock Historic District should be maintained.

Policy	
Policy 1.6	The County discourages amusement parks and other uses which exploit rather than complement the area’s history.

Goal 2: Improve the effectiveness of education and outreach to incentivize and promote historic resources preservation.

Policy	
Policy 2.1	The County encourages a comprehensive approach to educate the community and visitors on historic preservation.
Objectives	
Objective 2.1-1	Provide education and assistance to residents, businesses, and other stakeholders to promote historic preservation and manage historic resources.
Objective 2.1-2	Improve public understanding and interest in historic preservation with a variety of resources including reading material, exhibits, news and social media, broadcasts, school visits, and other public outreach.
Objective 2.1-3	Coordinate with the Storey County School District to develop and implement public education programs and classroom standardized curricula that promote awareness and preservation of local cultural resources.
Objective 2.1-4	Promote educational programs for citizen stewardship of cultural resources in a manner that will encourage future generations to understand and pass on the value of cultural resources.
Objective 2.1-5	Promote cultural resources awareness and preservation through local tourism and visitor entertainment programs and activities.

Policy	
Policy 2.2	The County seeks to incentivize private participation in historic preservation efforts.
Objectives	
Objective 2.2-1	Work with citizens and property owners to promote voluntary donation of property, deed restrictions, grants of easements, and other forms of less than fee-simple ownership that enable preservation of historic properties.

Goal 3: Continue long-term planning for the preservation of historic resources.

Policy	
Policy 3.1	Storey County supports a collaborative approach to planning for historic preservation.
Objectives	
Objective 3.1-1	Continue and enhance inter-local agency cooperation on historic preservation efforts.
Objective 3.1-2	Complete additional phases of the historic inventory funded by a 2021 State Historic Preservation Office grant, by making GIS data and linked photographs available on the County's website for use in future study and planning efforts.
Objective 3.1-3	Investigate additional potential public and private funding sources for the research and identification of archaeological resources in the county.
Objective 3.1-4	Work with state and federal agencies to plan for and secure grants to preserve and restore historic resources.
Objective 3.1-5	Work collaboratively with the Virginia City Tourism Commission and Comstock Historic District Commission to develop projects to preserve and restore historic resources within the historic district.
Objective 3.1-6	Plan and develop programs for historic preservation on lands within the Comstock Historic District and other places in the county where significant historic, archaeological, and cultural resources are found.

Policy	
Policy 3.2	Storey County supports appropriate design requirements and other ordinances and statutes related to the preservation of historic resources.
Objectives	
Objective 3.2-1	Work with the Comstock Historic District Commission to minimize conflicts between County and Historic District structure design requirements.
Objective 3.2-2	Consistently enforce applicable ordinances and statutes.

Goal 4. Protect and preserve the Lagomarsino Canyon Petroglyphs Site.

Policy	
Policy 4.1	The petroglyph site should remain with remote and difficult casual access until it can be better protected.
Objectives	
Objective 4.1-1	The County will refrain from disseminating maps or directions to the site in this master plan or in other official documents until appropriate permanent monitoring of the premises is established.
Objective 4.1-2	Construct and maintain motor vehicle barriers at site access points.
Objective 4.1-3	Prevent approval and construction of area road and access improvements around the petroglyphs site.
Objective 4.1-4	Require that parties pursuing the development of new land uses and/or infrastructure closer to the petroglyphs work with the County and other appropriate agencies to consider the protection of the petroglyphs site.

Policy	
Policy 4.2	The County and other relevant agencies and groups should continue current efforts to protect the petroglyphs site while pursuing longer-term protection.
Objectives	
Objective 4.2-1	Educate the public about the site's importance as a cultural resource.
Objective 4.2-2	Maintain interim efforts to protect the petroglyphs, including working with local residents and volunteer groups to casually monitor and exhibit presence at the site.

Policy	
Policy 4.3	The County supports public access to the petroglyphs once permanent protection can be established.
Objectives	
Objective 4.3-1	Help appropriate managing agencies establish permanent security at the site.
Objective 4.3-2	Continue to seek grants and other funding sources to improve the site with full-time security staffing and long-term management.
Objective 4.3-3	Plan for the potential alternative of transferring the site to federal or state ownership and/or active security and management of the site.
Objective 4.3-4	Collaborate with volunteer organizations, such as the Nevada Rock Art Foundation, local residents, and other stakeholders to develop a master plan detailing goals, objectives, and benchmarks for site improvement and long-term security and management.
Objective 4.3-5	Collaborate with the Nevada State Historic Preservation Office, the Nevada Division of State Lands, and other state agencies to explore ways to protect the petroglyphs site, such as by designating the site as a secure and actively managed state park.
Objective 4.3-6	Improve public access roads to the site after full-time security and management of the site has been established.

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