City of Portola

General Plan 2020

Adopted by the City of Portola City Council
January 11, 2012
Resolution No. 2111

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General Plan 2020
(Policy Review)

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City Council

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1. INTRODUCTION

1.1 GENERAL PLAN UPDATE

The City of Portola General Plan 2020 recommends review at regular intervals to ensure that the document is true to the original vision and principles of the City. Periodic adjustments to the General Plan may occur from time to time, as development opportunities emerge.

The Planning Commission began its review of the 2020 General Plan on February 17, 2009. It was agreed that the themes of the General Plan (technology, recreation, and tourism) remain critical issue in Portola. The importance of community activities, façade improvement, improved alleyways, emphasis on the Railroad museum and downtown activities, improved signage to downtown attractions, increased tourism, and improved businesses will all be the focus of this General Plan Update.

The original 2020 General Plan was a comprehensive update to the General Plan adopted by the City of Portola in 1983, and the Housing Element, adopted in 1992. In 1997, the City Council recognized the need for a new plan to anticipate the potential for development in the City and surrounding area. The City Council re-established the Planning Commission and charged it with preparing an update to the General Plan. A consultant team was selected in mid-1998 and commenced preparation of the General Plan with the Planning Commission which served as the advisory committee for development of the plan concepts and principles.

1.2 WHAT IS A GENERAL PLAN?

The general plan links community values, visions, and objectives with decisions that affect the physical development of the community, such as subdivisions and public works projects. It is a comprehensive policy document that defines the type, amount, and location of future growth and development within the city and forms the base for the city's planning activities and its decisions regarding development proposals. Each city and county in California must prepare a comprehensive, long-term general plan to guide its future (California Office of Planning and Research, 2003 General Plan Guidelines).

State law requires that subdivisions, capital improvements, development agreements, and many other land use actions must be consistent with the adopted general plan. Zoning and specific plans are also required to conform to the general plan.

The process of preparing, adopting, implementing, and maintaining the general plan serves to:

- Identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision-making, including decisions on development approvals and exactions.
- Provide citizens with opportunities to participate in the planning and decision-making processes of their communities.
- Inform citizens, developers, decision-makers, and other cities and counties of the ground rules that guide development within a particular community.

A General Plan is required to:

- **BE COMPREHENSIVE** It should incorporate the City's entire planning area, look at the region as a whole, and encompass a broad range of issues.
- **BE INTERNALLY CONSISTENT** All of the elements have equal status. Consistency is required between and within elements, among text and diagrams, and among any area plans.
- **HAVE A LONG-TERM PERSPECTIVE**

1.3 PUBLIC PARTICIPATION IN THE GENERAL PLAN UPDATE PROCESS

The Planning Commission began the General Plan Update process in February 2009 at regularly-scheduled Planning

Commission meetings, during noticed Public Forums. Regular monthly meetings were held throughout 2009 and 2010 to review individual elements; March 17, 2009; April 20, 2009; May 19, 2009; June 16, 2009; July 21, 2009; August 18, 2009; September 22, 2009, October 20, 2009; November 17, 2009; January 19, 2010; May 18, 2010; June 15, 2010; November 16, 2010; and May 25, 2011. A public Hearing was scheduled before the City Council on June 8, 2011 regarding the General Plan Update (to be updated based on City-Council directed public process and the timeline of the project).

1.4 AUTHORITY AND STATUTORY PURPOSES

All cities and counties in California are required to prepare a general plan. California Government Code Section 65300 requires that the General Plan be a comprehensive, long-term document for the physical development of the City. The General Plan must weave together the many threads of individual and civic life that make up a community. The fundamental goal is to describe how a complex set of circumstances will function collectively to achieve a workable plan for the future.

The General Plan provides direction for development.

Consistency with the General Plan

The General Plan links community values, visions and objectives with decisions that affect the physical development of the community, such as subdivisions and public works projects. State law requires that subdivisions, capital improvements, development agreements, and many other land use actions must be consistent with the adopted general plan.

1.5 TIME HORIZON FOR THE GENERAL PLAN

This General Plan looks forward to the year 2020. In that time dramatic changes will occur in Portola. The pace of growth is expected to increase sharply, and the fundamental economy will shift from basic industries to tourism and new businesses that rely on telecommunications. The twenty-year horizon is necessary to provide a context for planning major new road and infrastructure elements (such as water and sewer systems) that require a long time frame for planning, funding, and development.

1.6 THE VISION OF THE FUTURE

This General Plan will guide the City of Portola through an era of substantial change. Although Portola is a relatively small community and isolated from the large population centers of California, the City will be affected by economic and technologic changes far beyond its borders. These changes include an increase in the retired population, more leisure time and affluence to enjoy attractive communities, and technologic advances that enable certain types of employment to locate in relatively isolated locations.

An increase in retired population brings a higher demand for second homes and recreation-oriented retirement communities. Increased leisure time and affluence enables more people to visit communities such as Portola. This will enhance the local economy and lead to more diverse employment opportunities. More employment opportunities lead to population growth and housing demand.

New technologies and demographic trends will change the way people work, communicate, travel, and shop. These changes will provide many new choices for individuals and provide new opportunities that will affect where people choose to live. Company decision makers will select the location for company expansions and relocations largely on the quality of life available to themselves and their employees. Small communities with a high level of natural amenities and near to larger supporting metropolitan areas will attract new businesses and enjoy sustained economic development. The challenge will be to accommodate and derive the benefits of economic development without diminishing the natural amenities and small town environment that the current residents treasure.

This General Plan envisions Portola as the economic hub of the east Plumas County region. The industries that

sustained the community for more than a century: timber, mining, ranching and the railroad, have endured a steady decline due to changes in the national economy. However, a promising future lies in embracing and managing the population growth and economic development that will be attracted by the high level of amenity.

Quality of life and the preservation of the existing environment are essential to realize this vision. The type of new economic growth anticipated in this plan is totally dependent on retaining and enhancing the environmental quality found in the community today. The new residents and businesses that will be attracted to this community have choices to locate virtually anywhere they please. Retirees, small business entrepreneurs and those who choose the mountain setting, small community life-style and recreation opportunities have the choice of many communities. Portola will grow and prosper in the future only to the extent that it:

(1) protects and sustains the natural amenities it currently offers,

(2) manages the effects of growth, affordably maintains public services and infrastructure, and

(3) provides opportunities for quality economic development.

1.7 FEATURES OF THE GENERAL PLAN VISION

The General Plan vision of the future of Portola includes the following characteristics and features. All of these elements contribute to the overall success of the community, the quality of life for residents, and the quality of the experience for visitors to the community.

Environmental Protection

Portola enjoys a high-quality, natural environment. The General Plan will contribute to protecting this environment by limiting the intensity of development within, and directing inappropriate development away from, environmentally sensitive areas.

Employment Growth

Employment opportunities will come with growth in tourism, local services and new businesses, and growth in the residential community. The Land Use Element will facilitate job growth by providing suitable land area for new employers that is well located with adequate services and access.

Enhanced Retail Opportunities and Services for Residents

New retail and services for area residents will come with new population growth in the eastern Plumas County region. This will enhance the convenience and quality of life for residents and will reduce the need to travel outside the region for shopping and service needs. As the commercial hub for east Plumas County, Portola will be the center for new businesses and services. This will occur if there are suitable sites for the new businesses in an attractive setting.

Clear Sense of Community and Place

The City will retain the distinct sense of place distinguished by the compact form centered on the Feather River. Creating a "sense of place" is less tangible than most characteristics, but it is important to the social and aesthetic quality of the City. Sense of place is a resident's perception that the City is a unique place, with well defined boundaries, a logical order in land uses, and a distinct commercial and social center. This enhances the overall aesthetics and quality of life in the City. Moreover, such attributes help visitors to quickly understand the organization of streets and land use in a community.

Efficient, Affordable Public Services and Utilities

The City will provide public services suited to and affordable to the residents. The location of land uses directly affects the cost of public utilities and services. For example, extensive backbone sewer and water pipe systems significantly

increase both initial capital cost and on-going maintenance. Similarly, scattered, low-density residential use can increase the cost and diminish the effectiveness of police, fire, and recreation services. A compact city, with clustered housing in the rural areas, can help make public services and utilities more affordable and efficient.

Quality, Affordable Housing

The City will include a supply of quality housing affordable to the residents who work in the region. This is necessary for the economic development of the City. The Land Use Element will contribute by designating an adequate area for new housing and by excluding incompatible detrimental land uses from residential neighborhoods.

Safety

Safety from flooding, earthquakes, and wildfires will be achieved in part by not locating intensive land uses in harms way and, in part, by land use design that minimizes exposure and maximizes the ability to evacuate people in emergencies.

Alternative Transportation Methods

The use of private vehicles will remain the primary mode of transport in this region. However, the Land Use Element will contribute to minimizing the effects of automobile traffic by creating a compact community. By locating the more intense land uses along roads that can accommodate the higher traffic levels, it will be feasible to walk or bicycle for some daily trips. Public transit can serve the more intense land uses clustered along transit routes.

1.8 ECONOMIC SETTING

The City of Portola in 2010 is shaped by the industries that created and sustained it through the late 19th and 20th centuries. Portola developed around the railroad and highway. The railroad established the primary form of the City when it was platted in 1909; but timber, mining, and ranching have all contributed to the historic development and evolution of the town. As these industries expanded, the town prospered and grew. As these same industries declined, Portola experienced a long period of economic stagnation. Although timber, mining, ranching, and the railroad continue to play a role in the economy of this region, the future will depend on new types of businesses.

In the historic economy there was little need for commercial or industrial land use other than the commercial development along Sierra Street and Commercial Street. Consequently, Portola has little area available to provide economic development opportunities for small businesses that may seek space in the City.

The preparation of this General Plan coincides with new circumstances that promise a bright future for the City of Portola. The City is truly at a crossroads created by circumstances beyond its borders. If properly prepared, the City can ensure sustained economic growth, and maintain the existing quality of life for current and future residents. This General Plan defines a future based on these new circumstances.

The new circumstances that will drive economic development in Portola reflect broad changes in technology and demographic trends far beyond this community. Technology will change the way in which people will work, shop, communicate with others socially and in business, and engage in leisure activities. These changes will make it more likely that individuals will choose a place to live based on quality of life issues, rather than traditional economic considerations.

With telecommunications technologies and inexpensive, prompt delivery services, it is now possible to locate many types of businesses virtually anywhere. Office work, mail order sales, small manufacturing, and a wide range of other activities that historically had to locate in a major population center can now be located where the business decision makers choose. Portola is in a position to nurture this type of business as a cornerstone of economic growth. In order to attract new businesses the City will need to offer a variety of office, light industrial, and commercial space.

The amount of land area allocated to business development cannot be precisely established in the General Plan. However, it is essential that the City designate areas for commercial and business parks to accommodate economic

development opportunities.

Demographic forces will also affect the growth and development of many communities. An aging, relatively affluent population will also make retirement and recreation choices based on quality of life issues. As the "baby-boomer" generation reaches retirement age in the next two decades, a large population of relatively affluent households will be seeking to locate in communities that offer a high level of quality of life. The most attractive retirement areas will be smaller communities within a few hours drive of the metropolitan areas where these people spent much of their lives. The demand for retirement housing will be met in existing small towns, such as Portola, as well as large, master planned communities.

Tourism and recreation will also be a cornerstone of economic development in Portola. Tourism will create new service jobs and will also introduce the area to visitors and will thereby invite further population growth. Finally, job growth in the Reno area and in east Plumas County will create a demand for affordable housing and secondary jobs in Portola. Tourism will also be a growing factor in the future economy. The Railroad Museum, the River Park (described in the Land Use Element, Section 2.7.2), the Feather River itself, and Old Town Commercial area are existing or potential attractions for tourists. The City will provide a number of venues or activity centers to host large-scale events. The impact of the tourist visits and the growth of recreation activities in the east Plumas County region will be felt in retail, lodging, and service business growth.

Quality of life is fundamental to capturing a "fair share" of the growth that will result from these new circumstances. The key is to balance the need for new growth, including jobs, services, retail, and housing with protecting the natural resources and amenities in community. Indeed, without those natural resources and amenities, the fundamental attraction of the community will be lost and the economic growth needed to survive and prosper will be diminished.

1.9 PHYSICAL SETTING AND RESOURCES

The challenge to blend new growth with environmental protection is great, but Portola attributes offer significant advantages, including some that are virtually unique. The conditions in the existing community and the surrounding region, both man made development and the natural environment, are fundamental to determining the potential for future land use.

Regional Location

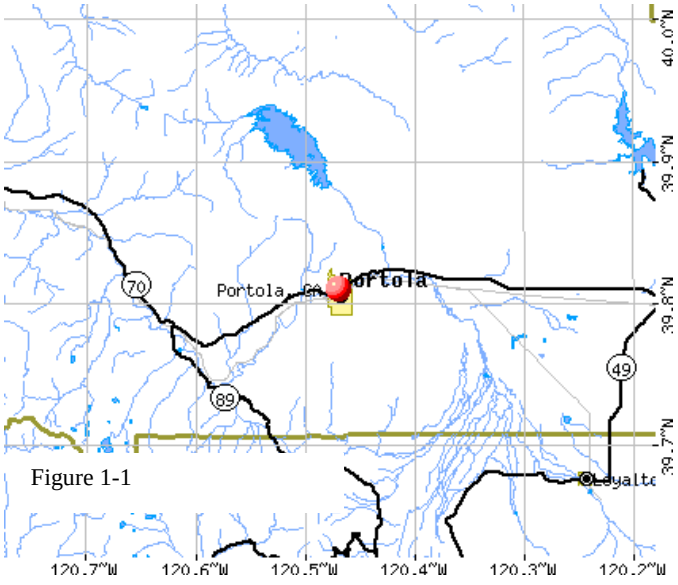


Figure 1-1

Portola is located just 45 minutes from Reno on an all weather highway, as shown in Figure 1-1. Highway 70 is a significant trans-Sierra route that brings commerce to the City. For businesses in Portola, Reno offers a larger market for services and supplies, a potential labor pool, and transportation connections. With the Reno/Tahoe International Airport so near, Portola can ship and receive materials as readily as any major metropolitan area. The Reno/Tahoe International Airport is also a portal for tourists attracted to Portola and the east Plumas County region.

This proximity to a major employment market enables residents to hold relatively high paying jobs and support a household in Portola. Out-commuting to jobs is not a desirable long term strategy for Portola, but the Reno area employment is a stable source of income that can help Portola grow its own economy and employment base.

Portola is the major urban center for several historic and emerging recreation/residential communities. These existing

and developing communities: Graeagle, Blairsden, Whitehawk Ranch, the Cedars, and Gold Mountain, among others, will attract both seasonal and permanent population that will require services and shopping. As these communities mature, the population will become more permanent and will require year-round services.

Mountain Setting

The City sits at the east end of the narrow Humbug Valley flanked on the south by Beckwourth Peak (7252 feet) and on the north by peaks reaching to 6200 feet. The mountains offer distant vistas when viewed from the town.

The City extends away from the river and into the forest on both sides of the valley. Distinct drainages to the river provide open space corridors and divide the City in small neighborhoods. On the south side of the river the drainage way has been preserved in a City park corridor. On the north side of the river, a drainage way interrupts the neighborhood street pattern.

The City and surrounding area is gently sloping. The maximum slope is typically less than ten percent. Steeper slopes, up to twenty percent, are found along the major tributary drainages and the mountain sides to the north and south. Generally, the steeper slopes are not a major factor in land use decisions because the steep slope areas are located away from the planned urban areas. Locally, steep areas limit the development potential and interrupt the neighborhood street pattern.

Feather River

The Middle Fork of the Feather River is a Federal Wild and Scenic River and is the dominant visual element in the City. The river channel is only about 100 feet wide, but the river plain varies between 500 feet and 800 feet wide. The river plain is an attractive area that includes both riparian habitat and mature ponderosa pines.

Distinct Boundaries

A low pass establishes a distinct entry to the City as one travels west on Highway 70 from Sierra Valley. The City entry is equally well defined at the west portal. The south side of the City and the rail museum buildings come into view as one driving east from Delleker rounds a curve in the highway adjacent to the river.

Compact Form

Portola is a compact City with boundaries and physical character defined by natural features. The City of Portola currently covers an area of 1268 acres, about two square miles. The Middle Fork Feather River, the Union Pacific Railroad and Highway 70 run parallel through the valley and divide the City in distinctly separate north and south sectors. Existing land uses are located in a clear, functional pattern. The primary institutional uses are clustered in a core along Gulling Street. These include the hospital, City Hall, the library, a City park, a County Sheriff substation, the Post Office, and the schools.

Distinct Commercial Core Areas

The primary regional services and highway commercial uses are located along Highway 70. Businesses serve both the local population and the regional traffic drawn by recreation opportunities. The commercial strip includes regional services such as banking, restaurants and automobile services. South of the river, the Old Town commercial area along Commercial Street provides small scale, local services and retail, and has the potential to become a tourism and recreation center for the region.

Railroad Museum

The railroad museum is a unique facility that attracts rail enthusiasts, as well as casual visitors. It provides a focal point for tourism and an anchor for economic development in the Old Town area. The City of Portola recognizes the importance of the museum to the character of the City and as an attraction to visitors in the community. The City Council endorses enhancements to the museum.

Recreation Resources

Portola residents enjoy a high level of recreation amenities in the surrounding forest, and in the City's parks and community facilities. Recreation-oriented tourism, such as fishing at Lake Davis, has been a fundamental component of the local economy. There are substantial opportunities for expanding recreation including mountain biking, bicycle touring, fishing, golf, camping and a wide range of other activities.

Historic and Cultural Resources

The local area is rich in historic resources that can attract visitors to Portola. In addition, the natural setting provides opportunities to host cultural events and permanent facilities, such as museums that offer additional visitor attractions. Historic features within Portola include the Railroad Museum and the Williams Cabin. Nearby features include the Beckwourth Cabin and Johnsville historic mining museum within the Plumas-Eureka State Park.

Public Services

The City is unique in the east Plumas County region in the ability to provide public services required by urban development. The City can use basic infrastructure, including sewer and water systems, to direct and moderate urban growth.

Hospital and Medical Services

The Eastern Plumas Hospital located in Portola serves the residents of eastern Plumas County. Access to a quality hospital, ancillary health and emergency medical services are an important consideration for households, notably senior citizens, seeking a new home. The hospital is an important asset in Portola's economic growth potential.

Education and Training Resources

Portola is the location of the elementary, middle and high school serving the local region. In addition, the educational opportunities include satellite courses offered by Feather River Community College in Portola, as well as the main campus in Quincy. The nearby University of Nevada, Reno offers a broad spectrum of courses.

1.10 GEOGRAPHIC AREA OF GENERAL PLAN STUDY

This General Plan examines three geographic areas: the current City boundary, the current Sphere of Influence boundary and a General Plan Study Area boundary. The General Plan Study Area is approximately 17 square miles. The City of Portola currently occupies about two square miles. The purpose in establishing the Study Area boundary significantly larger than the existing City is to identify and evaluate the areas surrounding the City that may affect the future economic viability, traffic, services, and aesthetic quality of the City. In addition, since many issues such as air quality, traffic and economic development, extend beyond political boundaries, the law provides for planning outside of the jurisdiction's territory.

The General Plan must cover all territory within its boundaries as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning," (Government Code Section 65300). A local government can formally communicate its concerns for the future of lands under its neighbors' jurisdictions by this means. "Cooperative 'extraterritorial' planning can be used to guide the orderly and efficient extension of services and utilities, ensure the preservation of open space, agricultural, and resource conservation lands, and establish consistent standards for development in the plans of adjoining jurisdictions" (State of California General Plan Guidelines). It is for these purposes that the City of Portola General Plan Study Area boundary extends beyond the existing Sphere of Influence. However, the City of Portola will not necessarily seek to initiate annexation of land that is either in the Sphere of Influence or the General Plan Study Area.

The area included in the General Plan Study Area considers proximity to the City, access to Highway 70, the terrain, and the potential for further urbanization as defined by land uses in the Plumas County General Plan.

1.11 AMENDMENTS TO THE GENERAL PLAN

To ensure that the General Plan is true to the original vision and principles it should be reviewed at regular intervals of approximately five years. Periodic adjustments to the General Plan may occur from time to time, as development opportunities emerge.

1.12 ELEMENTS ADDRESSED IN THE GENERAL PLAN

The California Government Code identifies seven mandatory elements of the General Plan. In addition to the mandated elements, the Government Code authorizes other General Plan elements which, in the judgment of the local legislative body, relate to the physical development of the community. Once adopted, these optional elements become an integral part of the General Plan with the same force and effect as the mandatory elements. The Portola General Plan is intended to guide the City in expanding economic growth and opportunities, while emphasizing quality of life issues, notably environmental conditions. Consequently, the General Plan includes the optional Community Design Element, Public Services and Facilities Element, and Economic Development element. These elements are intended to focus the plan on community quality, economic development, and environmental protection.

The Government Code permits a city to combine elements and issues in the General Plan as appropriate to the local conditions. The Portola General Plan takes advantage of this provision in combining the mandatory Open Space Element with the mandatory Conservation Element.

The City of Portola General Plan includes the following elements:

- Land Use (mandatory)
- Community Design (optional)
- Circulation (mandatory)
- Economic Development (optional)
- Public Services and Facilities (optional)
- Safety (mandatory)
- Open Space and Conservation (combined mandatory elements)
- Noise (mandatory)
- Air Quality (optional)
- Housing (mandatory)

Organization of the Elements

Each element provides goals, policies, and implementation measures. The policies and implementation measures are grouped by sub-topic. The policy statements are followed by implementation measures that relate to those policies. For certain topics the implementation measures may relate to more than one policy, just as the policies may relate to more than one goal. Where the policies and implementation may relate to a topic in another element, the policy is cross referenced to the other element(s).

An example of the format for the goals, policies, and implementation measures follows:

Goal LU-1. Enhance the quality of life and physical environment in the City.

CD-P-20. Establish a special pedestrian area in Old Town to accommodate tourism and shopping and services for local residents.

CD-I-37. Adopt guidelines for commercial buildings that reflect the history of the region, and compatible with the climate.

Each goal, policy, and implementation measure includes an identifying number. The letter code identifies the element in this General Plan. The letter following the element identification indicates "P" for policy, or "I" for implementation. The policies and implementation measures are grouped under an appropriate heading for quick identification. The number following the identifier code is the number of the policy or implementation measure. The numbers are sequential and continuous through each element.

2. LAND USE ELEMENT

This Land Use Element establishes the physical framework for development of Portola. It defines the location, use characteristics, and intensity of land uses throughout the City.

Authority

The Land Use Element is mandated by the California Government Code. The statute requires:

> *" a Land Use Element which designates the proposed general distribution, location, and extent of the uses of the land for housing; business; industry; open space, including agriculture, natural resources, recreation and enjoyment of scenic beauty; education; public buildings and grounds; solid and liquid waste-disposal facilities; and other categories of public and private uses of land"*

Relationship to Other Elements

The Land Use Element is a cornerstone of the General Plan. All other aspects of the General Plan relate to the land use and the physical form of the City. The City form is established in the land use policies and the General Plan Diagram. The type, intensity and location of land use described in the Plan directly influences, and is influenced by, economic development potential, housing, traffic generation and circulation patterns, requirements for public services and utilities, safety from hazards, and environmental protection. All of these factors interact for the enhancement of the overall community.

The other General Plan elements are linked through the Land Use Element. In turn, the Land Use Element is influenced, and constrained in some instances, by the goals and policies established in other elements. Existing and potential land use in the City and surrounding area is affected by environmental factors. These factors establish design requirements that will influence the character and density of development and, in some instances, limit the potential for new development.

The Land Use Element and the Open Space and Conservation Element are closely related in that they both deal with the use of land. The Open Space and Conservation Element addresses the management of land and resources in the areas where urban development is excluded or minimized. Similarly, the Safety Element is linked to land use by defining potential hazard areas and limiting the extent and character of development that will be permitted in such areas.

Land use drives the need for circulation and public infrastructure, and thus the Land Use Element is linked to the Circulation Element and the Public Facilities Element. Land use is also linked to the Housing Element by defining the land area and conditions for housing opportunities, and by establishing the employment-generating land uses that will create additional housing demand. Finally, the Land Use Element defines the land uses that influence the economic opportunities and fiscal stability of the community, and thus is linked to the Economic Development Element.

The Land Use Element is perhaps most closely linked to the Community Design Element. The two elements address the fundamental issues dealing with the use of land and development of urban uses. The Land Use Element focuses on the definition of land use categories and the location of land uses. The Community Design Element addresses the details of community form, and the quality of the built environment. The two elements are organized in parallel fashion to facilitate cross-referencing.

2.1 OVERALL LAND USE GOALS

The land use goals will guide the overall development of the City. Guiding policies and implementation policies based on these goals will direct in-fill development, expansion of new land use areas, and improvement of existing land uses.

Goal LU-1. Provide for land uses that expand employment, education, recreation, and cultural opportunities for residents. Reinforce Portola as the commercial and service center for eastern Plumas County.

Goal LU-2. Protect and preserve natural environmental features and amenities.

Goal LU-3. Reinforce strong urban design, quality development, and a compact City form.

Goal LU-4. Encourage mixed land uses but provide physical separation or design buffers between incompatible land uses.

Goal LU-5. Retain the existing commercial and civic core as the cultural and functional center of the City.

Goal LU-6. Reinforce land use and development patterns that encourage walking and the use of local public transit within the community.

Goal LU-7. Complete in-fill development of the unimproved portions of the City.

Goal LU-8. Maintain access to open space within the urban portions of the City, particularly the Middle Fork Feather River.

Goal LU-9. Provide multiple locations for recreation and cultural activities within the existing City core area.

Goal LU-10. Ensure that the mix of land uses results in a balance between public revenues and public service demands.

Goal LU-11. Establish orderly growth in new development areas to ensure logical public service areas.

2.2 KEY LAND USE ISSUES

Jobs/Housing Balance

"Jobs/housing balance" is the relationship between the number of jobs and the number of housing units available within the community. In a balanced community workers can find decent housing adequate to their household needs and affordable to their household income. Job growth and economic development depends on a supply of quality, affordable housing. A jobs/housing imbalance is detrimental to the economic stability of a community.

It is assumed that most households have between 1 and 1.3 workers. Therefore the ideal condition for a small city is that number of local jobs is about equal to or slightly higher than the number of households. Where the number of jobs is in balance with the number of housing units there is less need for workers to commute outside the community to find work. Such is not the case in most contemporary American cities. Long commutes indicate that jobs and housing are not balanced. The future will find Portola residents working in a variety of settings: at home, at small businesses in town, at one of the nearby recreation communities, and commuting out to Reno and elsewhere. The General Plan is a tool for guiding land use so that jobs and housing grow together.

Public Service Land Area Requirements

New population will generate the need for additional space for schools, parks, and institutional uses. The civic and commercial core should be augmented by multiple activity centers such as parks, public squares, and public buildings. The intent is to provide several locations that can accommodate special events and places of interest to attract tourists. Multiple activity centers will also provide spaces that can be coordinated to host large, multi-venue special events, or to host multiple small events concurrently.

Balance Community Growth with Revenues Required for Public Services

Growth in land use will provide additional revenues, but will also place additional service burdens on the City of Portola. The challenge to cities is to balance growth with funds for required new services. All components, residential as well as commercial and industrial, are necessary to the overall stability of a city. The intent is to ensure that the City can provide needed public services and that the land uses generate sufficient revenues to fund services adequate to meet public needs.

Types of Land Use

Once the overall form of the City and the general location of land use is established, the type of land uses, or "land use

categories" applied in the Land Use Element are described in Section 2.5. The Land Use Element establishes land use categories tailored to meet the specific needs of the City. Economic development opportunities, housing needs and environmental characteristics are among the factors that determine the appropriate land use categories.

The land use categories established in this General Plan will be implemented through revision of the City Municipal Code, Zoning Ordinance.

Community Form, Scale, and Character

The developed portion of the City should retain its distinct, compact form with clear, well-defined edges. The existing civic and commercial core area should be retained and reinforced as the functional and social center of the City for residents. The scale of the City should permit walking and bicycling (during the appropriate seasons) to major activity centers such as shopping, recreation facilities, and schools. Commercial, employment, recreational and institutional land uses should be conveniently located to the residential neighborhoods. High activity areas should be located to facilitate the use of public transit.

The general form, scale and character of land use in the community, and the connection to open space and the location and character of public space are addressed in the Community Design Element, Section 3.4.

Open Space and Natural Features

The land uses must ensure that scenic corridors and natural features are protected from incompatible development. Urban development should be located and designed so that natural features, such as creeks, the Feather River, the surrounding forest, and mountain vistas, are preserved as the defining visual characteristics of the City. The intent is to enhance the relationship of the creeks, forests, and river to the adjacent land uses by improving access for recreation, and by enhancing the view from the adjacent land uses.

Land Use Location

The Land Use Element defines the location of all planned land use in the City, the Sphere of Influence and the General Plan study area. The distribution and intensity of land use is influenced by the physical characteristics of the City, the compatibility of land uses and proximity to major circulation routes, among many other factors. Preservation of open space and natural features integral to the character of the community are primary considerations in determining the appropriate location of land uses.

2.3 GENERAL PLAN DIAGRAM (LAND USE MAP)

The Land Use Element illustrates the location of each land use category in a General Plan Diagram, or land use map shown in this Element as Figure 2-1. The location of each land use is affected by environmental constraints, compatibility with other land uses, the overall concept for development of the City, and the capacity of the circulation systems and public infrastructure systems to accommodate development. The text and policies of the Land Use Element and the General Plan Diagram establish a framework for the physical development of the City. As required by state law, land use classifications, shown as letter designations, labels or graphic patterns on the Diagram, specify a range for population density and building intensity for each type of designated land use.

The location of land uses in this General Plan considers environmental conditions, the compatibility of land uses, the capacity of the circulation system and the basic sewer and water systems to accommodate growth in subareas of the City. The General Plan Land Use Diagram also takes into consideration the urban form of the City and the distribution of activity centers that support community life and tourism.

2.3.1 General Plan Sub-Areas

The General Plan Study Area, including the land within the existing City and the surrounding land outside the City, is

divided into sub-areas that are useful in describing the General Plan land use concepts and intentions. Each sub-area may contain more than one Land Use designation.

North Neighborhood

This area contains the existing neighborhood north of Highway 70 extending up to Joy Way. The primary role of this sub-area is to retain the existing stock of housing and to encourage in-fill in the existing lots. Further development is constrained by the lack of sewer, water and finished streets to serve the existing lots.

Rural North

North of Joy Way is an area of rural large lot development. This area will most likely build out in the existing pattern of one-acre to five-acre home sites, but may also include clusters of smaller residential lots. They effect a transition between the small lots within the City and the forest and meadows further to the north and west along Lake Davis Road. There is additional potential in this area for large lot development and visitor commercial or recreation use, such as a guest ranch, conference center, or retreat.

South Neighborhood

This area contains the existing neighborhood south of Commercial Street and west of Gulling Street, including Ridgewood. As with the North Neighborhood, the primary land use purpose here is to retain and improve the existing stock of housing and to encourage in-fill in the existing lots. This area also includes undeveloped land east of Third Street that requires additional sewer, water, and road improvement to make existing lots available for use.

Sierra Street Commercial Core

The Sierra Street (Highway 70) Commercial Core will be the regional business center and a tourism and recreation center. Land uses will include conventional retail and service businesses oriented to the regional needs, restaurants, tourist-oriented lodging, retail and service shops, space for public events and recreation. The core extends from one end of the City to the other along Highway 70. The east end is oriented more to offices, small shops, and local-serving businesses on the north side of the highway. The west end is envisioned as oriented to regional as well as local businesses. A site suitable for redevelopment as a shopping center with a market and other shops and services is designated.

River Park (River Walk)

The river front along the north side of the river provides a unique setting for commercial and service land uses. Businesses, shops and restaurants, lodging and public spaces are envisioned along the south side of Sierra Street to the river. Existing buildings overlooking the river can be converted to resident services and tourist business use.

Old Town

This includes the area along Commercial Street and extends to Colorado Street and the old railroad hospital site on the west. The intent is to establish a special commercial and tourist core area with shops, restaurants, public space for recreation and leisure activities. The Portola Railroad Museum is a key element in this area that will attract visitors to the City.

Southeast Quadrant

This area includes the mix of residential, light industrial, and institutional uses (park, churches, hospital, and cemetery) east of South Gulling Street. Although platted as individual lots in the original City subdivision map, this area includes substantial vacant land and has limited sewer, water, and roads. It can be redeveloped in any pattern suitable for more modern development. This area is planned to become an expanded residential neighborhood and a new business/light industrial center. It may also include additional public or private institutional uses such as a conference center, a health center, recreation facilities, and other special purpose facilities.

Woodbridge

This area south of the high school has long been designated as a residential neighborhood. Uses as approved in the Tentative Map include commercial, business professional/light industrial, various types of housing clustered in the relatively flatter areas and low density housing in the steeper areas, and an extensive open space and trail system.

Southwest Quadrant

The southwest quadrant is located along the south side of the river, west of the existing City boundary. This area is suitable for providing additional housing. Development of this area will provide the local circulation routes that could ultimately be required for connection to a second crossing of the river near Delleker.

Portola Heights

Portola Heights is an existing underdeveloped neighborhood immediately west of the City and north of Highway 70. The area is designed and designated for small-lot residential development. The developed portions have public sewer and water provided by the City. It is anticipated that this area will develop in the existing pattern with minor changes for more efficient development.

West Neighborhood

To the west of Lake Davis Road and north of Portola Heights is an area suitable for a new residential neighborhood. The area includes a 160-acre parcel owned by the US Forest Service that would have to be acquired or exchanged to allow new development. The location could easily be served by the City sewer and water system and is relatively flat. It would accommodate residential uses in clusters and additional park land to serve the City residents. Development of this area would include a through street that connects the Lake Davis Road to Highway 70 west of Delleker and thereby provides a northern route paralleling the highway.

Highway 70 Corridor

The Highway 70 Corridor extends from the existing City boundary to Mabie on the west. The corridor includes the existing Delleker area and the commercial, quasi-industrial and residential uses permitted by the County along the highway. With relatively flat land and good highway access this area will continue to attract development. The General Plan anticipates additional commercial, light industrial, institutional, and residential uses in this area. The Community Design Element establishes design concepts and standards that will enhance this area such that it will provide an attractive entry to the City.

West Meadows

Between the Highway Corridor and the steep slopes to the north is an area that may develop in cluster residential use. The residences will be in predominantly low-density designations, but medium density residential development may occur where the housing is clustered for aesthetic reasons and to avoid environmentally sensitive areas.

Northeast Quadrant

The area east of the existing City boundary and Sphere of Influence is primarily designated for residential and recreation use. The area extends to east of Grizzly Road in the County and includes the Cedars project area. The General Plan does not propose changes to the uses in this area.

TABLE 2-1
POPULATION GROWTH PROJECTION

Annual Population Growth			
Year	2% Rate	3% Rate	5% Rate
1999	2140	2140	2140
2000	2183	2204	2247
2001	2227	2270	2359
2002	2271	2338	2477
2003	2317	2408	2601
2004	2363	2481	2731
2005	2410	2555	2868
2006	2458	2632	3011
2007	2508	2711	3162
2008	2558	2792	3320
2009	2609	2876	3486
2010	2661	2962	3660
2011	2714	3051	3843
2012	2769	3142	4035
2013	2824	3237	4237
2014	2880	3334	4449
2015	2938	3434	4671
2016	2997	3537	4905
2017	3057	3643	5150
2018	3118	3752	5408
2019	3180	3865	5678

2.4 LAND USE DESIGNATIONS

The Land Use Element is required to include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the General Plan. This section describes the types of land use the City will need to meet environmental protection, economic development, jobs/housing balance and public service goals. The land use categories established in this General Plan define the range of activities that are permitted in Portola.

The categories define specific classes of land use, but they are intended to provide flexibility in implementing the General Plan policies. Under state law, the Land Use Element of the General Plan must establish standards of population density and building intensity for each land use category.

The density/intensity standards do not indicate that development projects will be approved at the maximum density or intensity specified for each use. Zoning regulations consistent with General Plan policies and/or site conditions may reduce development potential within the stated ranges. The City's Zoning Ordinance contains more detailed provisions and standards for regulating the use and intensity of permitted development.

More than one zoning district may be consistent with a General Plan land use category.

TABLE 2-2
PROJECTION OF RESIDENTIAL UNITS AND ACRES

Annual Residential Growth Projection						
Year	2% Growth		3% Growth		5% Growth	
	Dwellings	Acres	Dwellings	Acres	Dwellings	Acres
2000	764	255	764	255	764	255
2001	780	260	787	262	803	268
2002	795	265	811	270	843	281
2003	811	270	835	278	885	295
2004	827	276	860	287	929	310
2005	844	281	886	295	975	325
2006	861	287	913	304	1024	341
2007	878	293	940	313	1075	358
2008	895	298	968	323	1129	376
2009	913	304	997	332	1186	395
2010	932	311	1027	342	1245	415
2011	950	317	1058	353	1307	436
2012	969	323	1090	363	1373	458
2013	989	330	1122	374	1441	480
2014	1008	336	1156	385	1513	504
2015	1029	343	1191	397	1589	530
2016	1049	350	1226	409	1668	556
2017	1070	357	1263	421	1752	584
2018	1092	364	1301	434	1839	613
2019	1113	371	1340	447	1931	644

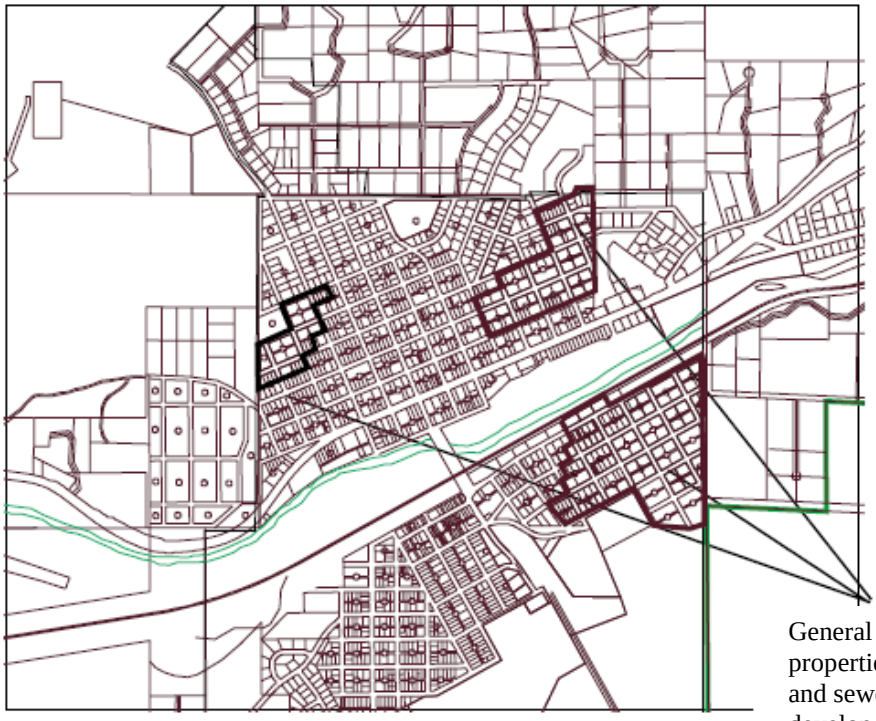
2.4.1 Residential Land Use Categories

Four residential land use categories are established to provide for development of a full range of housing types appropriate in the City. Housing densities are stated as the number of housing units per gross acre of developable land, excluding areas subject to physical, environmental, or geologic constraints and areas dedicated for green ways or natural resource protection. At least one housing unit may be built on each existing legal lot designated for residential use. Dwelling units may be clustered within a General Plan land use category according to standards established in the City's Zoning Ordinance and in the Community Design Element of this General Plan.

Residential units in addition to the number of dwellings permitted in the conventional zoning districts may occur as:

- second dwelling units on single family lots permitted by the City's Zoning Ordinance;
- state-mandated density bonuses for provision of affordable housing; and
- residential units included in the various commercial land use categories.

FIGURE 2-2
IN-FILL NEIGHBORHOODS



General vicinity of undeveloped properties that require streets, water and sewer service in order to be developed

Rural Residential (RR): Up to 0.2 units per gross acre (5-acre minimum parcel size)

The Rural Residential (RR) category is intended to accommodate large estate residential properties at the periphery of Portola. This designation will allow private equestrian facilities and tourist or recreation commercial uses such as a guest ranch, equestrian center, a golf course and golf training center, cross-country ski area, or conference center. Special use structures such as lodges and recreation activity structures may also occur. Such uses allow non-resident over-night guests or participants that are not included in the population for this residential category.

Development will typically be single family residences and accessory structures. In order to protect environmental resources, such as meadows and creeks, the residential lots may be clustered in densities that are higher than the nominal density permitted in this designation. Where appropriate to the environmental setting and the type of development, attached dwellings will be considered in the Zoning Ordinance under conditional use permit provisions. Dwelling units may be clustered on smaller lots provided that:

- Plumas County standards for septic systems are met, except that any lot less than 2.5 acres in size shall have public sewer and water.
- A minimum of 25 percent of the project is allocated to permanent open space.
- The average density in the cluster area does not exceed 0.4 units per gross acre.
- The minimum lot size in the cluster development shall be 1/3 acre with a minimum frontage of 100 feet.

Examples of an appropriate cluster or attached type of development include a guest ranch or conference center. The design of such structures and the associated improvements shall be consistent with the environmental setting. This will typically mean buildings in proportion to the surroundings, use of traditional, durable materials and minimal site grading.

The local roads in the Rural Residential designated areas may be constructed to a rural standard where the average lot is one half acre or larger in size.

The Rural Residential uses are located in areas constrained by slopes, meadows and environmentally sensitive areas.

The land use restrictions defined in the Open Space and Conservation Element and the Community Design Element will affect the potential density and location of residential development in this category. The category will typically be in proximity to low density residential use and open space, but may be near compatible commercial uses and higher density special purpose residential uses.

The average density assumed for General Plan buildout calculations is 0.2 units per gross acre.

Low Density Residential (LDR): From 0.2 to 1 unit per gross acre (1 acre to 5 acre parcels)

The Low Density Residential designation is intended to provide single family lots and related uses similar to those currently found on the periphery of the City. The category will typically provide a transition to medium density residential use from rural residential land use, but may be near compatible institutional and commercial uses and higher density special purpose residential uses.

Development within this land use category will typically be single family residences and accessory structures. Accessory structures are limited to garages, storage structures, planting sheds and green houses, and similar structures ancillary to the primary residence. This designation will also allow tourist or recreation commercial uses such as a guest ranch, equestrian center, a golf course and golf training center, cross-country ski area or conference center. Such uses allow non-resident over-night guests or participants that are not included in the population for this residential category.

Roads and other public improvements may be developed to rural standards, as described in the Circulation Element and the Community Design Element of this General Plan, provided that the roads can meet the standards for maintenance, and on-street parking, where permitted.

Clustering is encouraged to avoid areas of environmental sensitivity and to minimize the length of roads and public utilities. The maximum density in this designation may be increased to 2 units per gross acre for clustered development with smaller lots if a minimum of 25 percent of the project is allocated to permanent open space, and the average density does not exceed 1 unit per gross acre. The minimum lot size in the clustered development shall be 1/4 acre with a minimum frontage of 80 feet. Any lot less than 2.5 acres in size shall have public sewer and water.

The average density assumed for General Plan buildout calculations is 1 unit per gross acre.

Medium Density Residential (MDR): From 1 to 8 units per gross acre (1 acre to 4,000 square foot parcels)

The Medium Density Residential designation is intended primarily for single family detached dwellings on individual lots, although this density range will also accommodate duplex and attached dwellings, including apartments and condominiums. Typical lots would range from 6,000 to 20,000 square feet, however, lots as small as 4,000 square feet may be permitted in cluster configurations to avoid environmentally sensitive areas.

This category includes the existing urban style residential neighborhoods in the City. Neighborhoods in the medium density land use category will include the standard residential street with curb and gutter as described in the Circulation Element and the Community Design Element.

The average density assumed for General Plan buildout calculations is 4 units per gross acre.

High Density Residential (HDR): From 8 to 15 units per gross acre) (4,000 square foot to 2,250 square foot parcels)

The High Density Residential category provides for attached or multi-family dwelling units. Such units are to be located in close proximity to public services and commercial uses, but may also be included as a component in recreation-oriented developments in the peripheral areas of the City. The minimum building area allocated for each dwelling unit in a multi-unit project shall be 2,250 square feet of net area (i.e. exclusive of streets, open space and other public rights-of-way). Lot sizes will include a minimum of two residential units and will typically be a minimum of 5,000 square feet.

Dwelling types may include attached or detached single-family housing, duplexes, triplexes, townhouses and apartments.

The average density assumed for General Plan buildup calculations is 10 units per gross acre.

Home Occupancy

All residential uses will allow home occupancy businesses subject to the standards established in the City's Zoning Ordinance. It is anticipated that the percentage of individuals working at home will increase during twenty year span of this General Plan. At home workers may include telecommuters, professional service sole practitioners, small service businesses, mail order businesses, and other entrepreneurial endeavors. It is the intent of this General Plan to support such activities as a means of furthering local economic development. The residential design standards are intended to provide the flexibility to include most types of small business within the premises.

The design standards for live/work housing are addressed in the City's Zoning Ordinance.

2.4.2 Commercial Land Use Categories

Although Portola is a relatively small community the commercial land uses, both existing and potential, are varied. Therefore, the General Plan Diagram identifies two distinct commercial land use categories.

For nonresidential uses the land use intensity is addressed as the maximum percent of a lot that can be covered by a building. The Zoning Ordinance shall provide specific exceptions to the building coverage limitations for uses with low employee densities, such as wholesaling and distribution, or low peak-hour traffic generation, such as a hospital.

Core Commercial (CC)

The Core Commercial category is intended to accommodate the businesses, institutions and services for the residents of Portola and eastern Plumas County. It includes retail and service businesses oriented to tourists and travelers, eating and drinking establishments, commercial recreation, service stations, financial, business and personal services, motels, public recreation and social services. Open air cafes and retail sales are permitted in this land use designation provided that the outdoor sales and restaurant areas are separated from the pedestrian walkway and street by a low, open type fence. Umbrellas, canopies and other temporary coverings, pedestrian scale lighting and signs will be permitted in these areas as regulated by the City Zoning Ordinance.

Arts and Crafts Production

The Core Commercial designation will include live/work/sales environments to support the local production of arts such as sculpture, murals, paintings, furniture, and similar artists products. The product of such activities may be sold and the artist may maintain living quarters on the premises. The intent is to encourage the development of artist and craftsman workshops as a component of local economic development and the character of the community.

The Core Commercial designation is generally applied to properties on Commercial Street and the Sierra Street (Highway 70) corridor.

The maximum allowable building coverage is 50 percent. Limitations on the size and location of parking and the orientation of the buildings and design standards may restrict the building coverage to less than 50 percent. The parking requirements in this category are described in the City's Zoning Ordinance. Each use shall have sufficient parking to meet the requirements set forth in these standards either in a parking lot on-site, or in a common parking area within 800 feet of the site.

Commercial Mixed Use (CMU)

The purpose of the Commercial Mixed Use designation is to establish locations that include residential use in addition to employment centers, retail commercial, professional office, tourist commercial, visitor-oriented commercial activities, including hotels and motels, private commercial and public recreation facilities, convention and meeting facilities, recreational vehicle parks, campgrounds, retail shops, restaurants and related services. Properties fronting on the river are suitable for small retail, lodging, restaurants, services, and office space. The uses are to be oriented to the river view and the recreation amenities planned along the north side of the river. Other than pre-existing uses, residential uses cannot be the primary land use and must be a minimum of four dwelling units per acre. The Commercial Mixed-Use category may also be used as a transition between the commercial uses and adjacent residential neighborhoods. The maximum building coverage ratio (exclusive of residential uses) is 50 percent.

Service Commercial (SC)

Service Commercial is intended for commercial uses that have heavy truck traffic, are engaged in the sale of bulk products, such as sand and gravel, or automobile repair and tire sales. Service commercial uses typically require large retail space, large storage areas, and large parking areas. The Service Commercial areas are located along Sierra Street, primarily in Delleker. The maximum building coverage ratio is 50 percent.

2.4.3 Business Professional/Light Industrial (BP/LI)

The Business Professional/Light Industrial designation is intended to accommodate light industrial, light assembly regional services, public and private commercial recreation, small warehouse and distribution, communications and information services, mail order services, and research and development businesses appropriate to the City's setting.

The designation is intended to accommodate relatively small buildings in wooded settings. Buildings will be integrated with the site and the maximum building coverage will be 50 percent. Design standards specified in the Community Design Element will guide the development and use of this designation such that business uses in this will be compatible with and may be integrated with other uses in the City.

2.4.4 Public/Quasi-Public (P/QP)

This designation includes civic and institutional uses such as the City Hall, the library, the hospital, the post office, parks, and schools. Private institutional uses include meeting halls, private schools, and churches.

2.4.5 Utilities (U)

The Utilities designation includes the "infrastructure" in the community, such as the landfill, wastewater treatment plant and ponds, and the railroad. Development within these areas is generally restricted to the facilities associated with the primary utility.

2.4.6 Open Space/Conservation (OSC)

The Open Space and Conservation designation covers those areas of the City in which development is constrained by an historic, cultural, aesthetic, or natural environmental condition. These areas include drainages and the river front area.

Open space areas may permit rural residential uses, recreation uses, visitor commercial or interim uses, such as special events under conditions prescribed in the City Zoning Ordinance, the Community Design Element and the Open Space and Conservation Element.

2.4.7 Overlay Designations

Wild and Scenic River (WSR)

The Middle Fork Feather River is Federally designated as a Wild and Scenic River. The Wild and Scenic River Act

(Public Law 90-542, October 2, 1968) declares that ". . .certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations". The Act prohibits new commercial or industrial uses which do not preserve the free-flowing condition of the river, and which do not protect the river's immediate environment. The Act also requires protection of the bank lands by means of acreage, frontage, and setback requirements on development.

The General Plan Land Use Diagram does not include a separate category for the Feather River corridor other than the Federal Wild and Scenic River designation. However, the General Plan includes specific development and open space standards and guidelines intended to guide use of this special resource. The Community Design Element includes specific design standards for the buildings along the river and community access to the river (Section 3.7). The Public Services and Facilities Element includes recommended recreation facilities to be included in the river corridor, and the Circulation Element describes the bikeway connections that will use the open space adjacent to the river. The Conservation and Open Space Element includes specific policies for the use of the land within the Wild and Scenic River designation.

Floodplain (FP)

The area immediately adjacent to the Middle Fork Feather River falls within a designated Federal Emergency Management Agency (FEMA) floodplain. This floodplain is a special flood hazard area that is inundated by a 100-year flood. The use of the land within the 100-year flood plain is regulated by standards that require all occupiable development to be above the predicted flood elevation.

2.5 PROJECTED POPULATION GROWTH

The land area required to accommodate future development is determined by population increases and economic development. The land plan seeks to maintain a balance between population and economic growth, and the effects of growth.

The Portola population grew steadily from 1910 to 1950, but declined from 1950 through 1970. From 1970 through the early 1990's population gained slowly, but did not recover to the same level of population found in 1950. Population growth was modest through the 1990's.

New population growth in Portola is likely to come from three primary sources:

(1) Population growth in California and northern Nevada will generate a spill over effect as people seek to relocate to small communities from increasing development in more urban areas.

(2) An aging population will generate an increase in retirees seeking small communities for second homes or a permanent retirement home.

(3) Economic development will generate new job growth in service and tourism industries, and growth in small businesses whose leaders can choose a location based primarily on quality of life considerations.

The cumulative effect of these factors is difficult to project because the current population in the City is very small. The overall growth rate in California will increase the pressure for population growth throughout the state, but the rate of increase will not be matched in all areas. Individual communities will grow faster or slower than the overall state projection. Moreover, in a small community like Portola the annual percent of growth is not as significant as the actual number of new residents. Because the community is relatively small, population projections based on an annual average percentage increase are not meaningful. With a population base just above 2,000 residents, a relatively small increase in absolute population could translate to a high growth rate, yet there would be little noticeable effect on the community from year to year.

Nonetheless, the cumulative effect over time will be noticeable, and significant in a small community such as Portola.

Table 2-1 summarizes a projection of population growth in the City through 2020, a twenty year time horizon. The table applies three growth rate assumptions: 2 percent, 3 percent and 5 percent.

At a compound growth rate of 5 percent annually the population in the City will reach a total of 5,678 persons in twenty years, a net increase of 3,538 persons.

The growth rate anticipated in the original General Plan 2020 has not been revised in the General Plan Update, although the City has not experienced any growth since 2000. Preliminary census figures have documented a slight decline in population from 2,227 in 2000 to 2,109 in 2010. The General Plan Update still plans to accommodate future growth.

2.6 PROJECTION OF LAND AREA TO ACCOMMODATE FUTURE GROWTH

Full development of all land use in the General Plan Study Area would accommodate a population substantially larger than 5,678. However, the population growth anticipated in this Land Use Element can be accommodated within the existing City boundary if adequate land area is allocated in appropriate locations, and the necessary supporting land uses and infrastructure is available when needed. If additional land is annexed to the City, the potential population will increase in proportion to the development potential of the new land area.

The estimate of the required land area is determined by the projected population in twenty years, the average number of persons in a dwelling, and the average density (dwelling units per acre). Land area for commercial uses, schools and parks are added to support the projected population. This estimate provides a general guideline, not an absolute benchmark for future land use allocations. Within broad ranges of land use mix the City can assign specific land use and adjust to accommodate changes in demand over the period of this General Plan.

Average Household Size

The average household size during the General Plan time horizon is assumed to be 2.8 persons per household. This assumption is based on household size in the City in 2000. The household size may fluctuate over a period of decades. For example, if Portola attracts a significant number of retired persons the average household size may actually decline over time.

Average Dwelling Density

For the purposes of estimating future land area required, it is assumed that the average density of all dwelling units constructed in the next twenty years will be three units per acre. This allows for a mix of higher density in-fill development on existing urban lots at approximately seven units per acre, and development of new residential neighborhoods including small lots and multi-family residences, manufactured housing, and larger single family and estate lots. The dwelling density is the average number of dwelling units on a developed acre in the City. Dwelling density depends on many other factors, such as the type of employment available, the amount of in-fill development that occurs, the percentage of retirees that locate in the City.

The land area allocated for residential use in the Land Use Element will accommodate the highest level of growth anticipated, five percent. This will be considered the "build-out" population for this General Plan. However, the General Plan will also be effective if a lower rate of growth occurs. At an average of 2.8 persons per household the number of dwelling units required to house the projected population is shown in Table 2-2.

Land Area Required for Jobs/Housing Balance

The land area requirements for development of the City also include the non-residential land uses, public facilities and open space. Retail and service commercial, business-professional and industrial land use will increase as the population of the City and east Plumas County increases. Tourism and other economic development may increase the demand of service and retail commercial land above that created solely by population growth.

The precise amount of commercial land area cannot be projected, but an approximation of the land area required can be estimated on the basis of an average jobs/housing ratio. The jobs/housing ratio depends on:

- the number of resident workers,
- the number of households,
- the average commercial or industrial space required per employee, and
- the average density of housing supply.

An estimate of the ratio of land required for a balance of jobs and housing in the City is based on the following assumptions. On average, there will be 1.3 workers per household, that is, each dwelling unit will have 1.3 workers. However, this average could be less if the population includes a large percentage of retired persons. The percentage of retired persons cannot be estimated in this General Plan.

Land Area Required to Accommodate Employed Residents

The land area required to accommodate each worker varies greatly from industry to industry. For the purposes of establishing a balance of land use in the General Plan it is assumed that on average each worker will require approximately 500 square feet of work space. The average commercial space in Portola covers approximately thirty percent of the land. Each acre of non-residential land use can accommodate about 25 employees. At a ratio of 1.3 workers per dwelling unit and an average of three dwelling units per acre, there are approximately four resident workers for each acre of residential land use. On this assumption, one acre of commercial, business/professional or industrial land is required to balance six acres of residential use.

Land Area Required for Institutional Uses and Public Services

Public facilities, including schools, parks, hospitals, civic centers and fire stations require additional land area on the ratio of approximately 1 acre for each 10 acres of residential use. Open space and natural resource areas occupy approximately 30 percent of the total land area in the community.

Land Area Required for Fiscal Balance

The revenues required to support City services come from many sources, but two of the most important continue to be sales tax and property tax. In the foreseeable local government financing environment cities must consider the balance between the demand for services and the potential for new development to generate revenue. The overall health of the community depends on a balance of land uses. Non-residential uses may generate high revenues relative to service demands, but the residential uses are necessary to support the non-residential uses. The intent in this Land Use Element is to ensure that the overall balance of land use is sustained over time.

Infill Neighborhoods

The City includes three neighborhoods that were by-passed and not developed in the early years of the City growth. Despite being located near the center of the City, see Figure 2-2, these neighborhoods were passed over because the terrain made the area uneconomical to develop. Nonetheless, the lots were subdivided, and exist today as legal lots. Development of these areas remains impractical for individual land owners due to the high cost of extending roads, sewer, water and other utilities to single family residential lots. Yet, the neighborhoods are ideally located relative to existing and planned services and retail areas. These in-fill areas will provide additional land area needed for population growth and economic development. Due to the high cost of development for individual owners it is likely that the City of Portola, or other public or private entity in cooperation with the City, will take the lead in organizing the property owners to plan and develop these areas. Organizing and developing these lots may require reconfiguring them to provide larger lots and/or new lot shapes and street alignments to conform to the terrain.

In 2002, 2007, and 2009 the Planning Commission and City Council sent letters, made direct contact with property owners, and conducted a survey with information regarding the formation of an assessment district (for road improvements) and Specific Plan areas (for the potential of reconfiguring neighborhoods). Generally, property owners were not interested in forming an assessment district or Specific Plan. Further analysis should continue as directed by the Planning Commission and City Council.

Growth Monitoring: Balancing Land Use and Public Needs

The mix of land use in the City should be monitored periodically to inform future decisions on land use, public service levels, and capital investments. The process for monitoring growth should occur in the annual budgeting process. The annual budget statement should include a summation of the overall mix of land use.

The mix of land uses in the City will vary from time-to-time. The changes in land use will be particularly noticeable because Portola is a small community. Any single new industrial use or a single new residential subdivision will affect the balance of land uses. There is a range of land uses that will provide a balance of jobs and housing, adequate space for public uses, fiscal stability, and quality of life.

This range provides a general guideline for the mix of all land use in the City. It is not intended to be a specific measure of community health and stability, and should be expected to shift and change over five to ten years. The mix of land uses in the City is a mosaic that will change and evolve as the community continues to diversify and mature. The range established in this Land Use Element is intended to gauge the course of future development. The range in Table 2-3 should be considered a picture of the unfolding future. Individual development proposals should be evaluated as to how well they contribute to completion of the picture. If the picture is incomplete, such as a shortage of adequate space for new jobs, or parks or new housing, the City should seek to maintain the balance and complete the picture. This can be done by amending the General Plan to change the available supply of land, and implementing strategies to accelerate economic development.

TABLE 2-3
TARGET RANGE OF LAND USE MIX

Land Use Type	Percent of Total Land Area
Residential Low/Medium Density	55% to 65%
Residential High Density	3% to 6%
Commercial and Other Non-Residential	9% to 12%
Public Land Use (including roads)	15% to 20%
Urban Open Space	20% to 30%

Urban open space in Table 2-3 primarily includes the undeveloped land along stream corridors and other open space set aside for safety, habitat protection, or aesthetic purposes. The Feather River is a substantial area that significantly increases the percentage of open space within Portola, compared to what may typically be found in other communities. Open space is an important characteristic of the City of Portola. A discussion of open space policies is found in the Conservation and Open Space Element (Section 8.5) in this General Plan.

2.7 LAND USE POLICIES AND IMPLEMENTATION

Policies: ***Land Use***

LU-P-1. The City shall manage and plan for growth in population and economic development.

LU-P-2. The City shall encourage a pattern of development that promotes the efficient and timely development of urban infrastructure and preserves valuable natural and environmental resources.

LU-P-3. Growth shall mitigate its own impacts and shall provide a positive benefit to the community.

LU-P-4. The City shall consider the regional context for growth when evaluating a development proposal or opportunity within the City boundary.

LU-P-5. Growth must provide a strong diversified economic base and a reasonable balance between employment and affordable housing.

LU-P-6. Growth should occur on the basis that projected revenue of all land uses in the City will be sufficient to support public service costs.

LU-P-7. The City shall encourage a development pattern that is contiguous with the boundary of the City.

LU-P-8. Development shall be managed to ensure that adequate public facilities and services, as defined in the Public Services Element, are planned and provided and the public health, safety, and welfare is protected.

LU-P-9. The City of Portola will accommodate projected population and employment growth in areas where the appropriate level of public infrastructure and services are planned or will be made available concurrent with development.

LU-P-10. The City will assert its authority in reviewing proposals for residential, commercial, or industrial development in unincorporated areas within the General Plan Study Area. Urban development should occur within the City boundary.

LU-P-11. The City may initiate studies to investigate the potential of annexing areas within its Sphere of Influence or expanding the Sphere of Influence boundary. The studies should be focused on those areas that would be logically served and planned by the City in a manner consistent with the City General Plan goals and policies and the City's Annexation Policy.

LU-P-12. The City will consider applications for annexations that are consistent with the City's Annexation Policy and:

a. Are contiguous with City boundaries and provide for a logical expansion of the City;

b. Create clear and reasonable boundaries;

c. Ensure the provision of adequate municipal services;

d. Are a fiscal benefit to the City and its residents;

e. Are consistent with State law and Plumas County Local Agency Formation Commission standards;

f. Are consistent with the General Plan.

LU-P-13. The City may consider expanding its sphere of influence to incorporate areas that logically should be planned and serviced by Portola. Pursuant to LU-P-11, the City shall consider the following factors when making determinations involving sphere of influence boundaries:

a. Present and planned land uses in the area;

b. Present and probable need for public facilities and services in the area;

c. Present capacity of public facilities and adequacy of public services;

d. Existence of any social or economic communities of interest in the area; and

e. Open space and forest lands.

LU-P-14. The City shall seek to encourage development of the in-fill areas and may participate in public-private development arrangements to implement this policy.

LU-P-15. The City shall encourage and support the exchange of US Forest Service land for urban land use and open space within the City sphere of influence.

LU-P-16. The City shall manage growth in such a way to ensure that significant open space areas will be preserved.

Implementation: ***Land Use***

LU-I-1. The City will continue to pursue a regional approach to planning and growth in the east Plumas County area. The City will seek public comment and early consultation with applicable agencies for major projects proposed either within or outside Portola. The intent of this consultation will be to provide public input to the process and to coordinate planning efforts between jurisdictions and minimize the impacts of growth to Portola and the surrounding region.

LU-I-2. The City Manager will coordinate preparation of a five-year public services report to the City Council in concert with that year'sbudget report. This report should document growth trends the capacity and level of service for public services and facility planning efforts.

LU-I-3. The City Manager will coordinate preparation of a five-year land use summary report to the City Council in concert with the that year's budget report. This report will document the growth in residential and commercial development and estimate the increase in employment in the City over the previous five year period.

LU-I-4. The land use summary shall include a reference to the range of land use mix in Table 2-3 in this Land Use Element and determine the then current and five year projection of land use in the City.

LU-I-5. In a public hearing process, the City shall establish guidelines and procedures for periodic monitoring and evaluation of the growth in the City budget, the number of dwelling units, growth in sales tax revenue and other factors that affect the fiscal stability and health of the City. The intent is to maintain balance over time, rather than on a project-by-project basis.

LU-I-6. With input from the public and the affected property owners, the City shall initiate a study to determine an appropriate and feasible land plan for the in-fill areas. The City shall coordinate the preparation of a master plan that may result in reconfiguration of existing lots to achieve a more efficient and feasible land use and street plan.

LU-I-7. With input from the public and the affected property owners, the City shall initiate a plan for providing infrastructure to the in-fill areas. The plan will include a finance plan to enable the development of infrastructure funded by the properties that benefit from the improvements.

3. COMMUNITY DESIGN ELEMENT

Surrounded by mountains and forests, and located around creeks and meadows, the Feather River and Humbug Valley, Portola is inherently an attractive community. One challenge to living in this setting is to develop a built environment that is compatible with the natural amenity. Poor quality design and construction, and poor maintenance of existing buildings, has the ability to seriously detract from the surrounding beauty and diminish the very features and character that attract people to live here. This is not to imply that human occupation of the forest and mountains is inherently incompatible with the natural surroundings. Indeed, attractive buildings designed to be compatible with the natural surroundings have the ability to inspire, and to be an attractive complement to the natural setting. The community can be designed to sustain and be in harmony with the environment.

The first priority is to not destroy the natural amenities that make the area so attractive. The guidelines are simple. Do not remove more trees than necessary to construct a building and do not unneccessarily modify the natural land form or the natural flow of water through grading. Compliance with these fundamentals will inherently protect the natural character of the community. The companion priority is to develop the community in a manner that is compatible with and protective of the surroundings. The Community Design Element defines specific details for development of the City. These details address building characteristics and common area features such as landscaping, signs, neighborhood design, and community form.

Authority

The Community Design Element is an optional element of the General Plan under Section 65303 of the Government Code.

"The general plan may include any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city."

Relationship to Other Elements

The Community Design Element establishes intent and guidance for community development and is closely related to the Land Use Element. The Land Use Element defines the location and use of land. The Community Design Element defines the characteristics of the land use and provides guidelines and standards for development. This is the basis for new development standards that will be applied in the subsequent amendments to the Zoning Ordinance, the Improvement Standards, and Subdivision Ordinance in the Municipal Code.

The Community Design Element includes guidelines for developed area relationship to open space and forested areas, and guidelines for development in sloping or highly erodible areas. These fundamentals are also addressed in Open Space and Conservation Element and the Safety Element. The Community Design Element is also related to the Circulation Element in the recommendations for street, parking, public transit, and pedestrian and bike system features.

3.1 COMMUNITY DESIGN GOALS

The fundamental goal for the Community Design Element is to encourage development that:

- is economically and environmentally sustainable; relates well to the natural setting;
- is sustainable because it is well constructed of durable, quality materials appropriate to the setting; and
- offers memorable buildings and spaces.

The underlying principle in this Community Design Element, indeed throughout the General Plan, is that natural amenities and the man-made environment are not mutually exclusive. Portola residents and visitors will be able to enjoy the built environment integrated into the natural beauty of the region.

Goal CD-1. Guide development of the community in a manner that will sustain the natural resources and amenities and will be economically sustainable over time.

Goal CD-2. Foster creativity and design excellence consistent with community objectives, the environmental characteristics of the area and the economic conditions inherent in a small, rural community.

Goal CD-3. Ensure that development will be compatible with the natural features that define the existing City and surrounding area.

Goal CD-4. Establish high standards so that the future development will be attractive, distinctive, and functional.

Goal CD-5. Protect natural environmental features and integrate the built environment with the natural environment.

Goal CD-6. Establish quality development appropriate to the local history, culture, and natural environment.

Goal CD-7. Build for long term durability and economic life cycles.

Goal CD-8. Establish well designed, distinctive gateways, lighting, and signage that will distinguish Portola as an attractive community.

Goal CD-9. Retain and enhance the existing, well-defined form of the City.

Goal CD-10. Provide public spaces to accommodate visitors with minimal impact on City residents.

Goal CD-11. Establish attractive, well-designed, and distinctive districts such as Commercial Street and a business park to enhance employment and economic development opportunities.

Goal CD-12. Enhance and preserve the existing neighborhoods, and restore or replace existing housing stock in the older neighborhoods.

3.2 PROTECTION AND ENHANCEMENT OF NATURAL AMENITIES

Policies: Protection of Open Space and Natural Resources

CD-P- 1. Where contiguous to open space, development will be designed to provide views to meadows, creeks, rock outcroppings and other natural features.

CD-P- 2. Meadows and riparian corridors along drainage ways and the river are to be maintained in the natural condition. No structures will be permitted in meadows or riparian corridors other than small structures incidental to recreation, agriculture, forest management, environmental management, or education activities. Such structures may include open pavilions, seating areas, small informal amphitheaters, kiosks, open shelters for recreation, small structures for storage required for maintenance, and similar basic structures. Major structures such as lodges, residences, restaurants, resorts and other similar buildings will not be permitted in a meadow or riparian corridor.

CD-P- 3. The edge of the City adjacent to forests and meadows will provide a transition from urban to open space by reducing the intensity of land development.

CD-P- 4. The urban portion of the City will be clearly distinct from the unincorporated area along the major roads entering the City.

FIGURE 3-1
CHARLES CREEK MEADOW

Implementation: **Protection of Open Space and Natural Resources**

CD-I-1. All applications for tentative maps, conditional use permits, and planned unit developments pursuant to the Municipal Code will be required to show:

- the location and character of any natural features, such as a spring, meadow, rock outcropping, or defined drainage way;
- the location of trees to be removed in the development;
- a grading plan that indicates cut and fill banks.

CD-I-2. At the discretion of the City Council applications for tentative maps, conditional use permits, and planned unit developments pursuant to the Municipal Code shall include a reforestation plan that provides for replacement of trees removed in construction. The replacement plan shall indicate the location and method of replacing one tree for each tree cut. The reforestation may occur in the project site, or in another location acceptable to the City.

CD-I-3. The review of all such applications will consider the effect of the proposed development on major natural amenities, such as a large rock outcrop or view to a major peak.

CD-I-4. Adopt design guidelines for development adjacent to creeks that include consideration of the following:

- streets abutting the bank;
- discourage rear lot lines along creeks;
- provide public access and visual easements to creeks;
- linkages to other open spaces and open space systems;
- trails for pedestrians and bicyclists;
- planting for erosion control and riparian enhancement with native shrubs, groundcover, and riparian trees.

CD-I-5. Work with Plumas County to support implementation of the Scenic Highways policies in the

County General Plan.

CD-I-6. Work with the United States Forest Service (USFS) to implement the Wild and Scenic Rivers standards in the Plumas Forest Master Plan.

CD-I-7. Maintain view corridors to the river along the existing streets leading from Highway 70. New development or redevelopment of existing properties abutting or within these corridors must be designed to maintain the view to the river.

FIGURE 3-2
FEATHER RIVER WITHIN THE CITY

CD-I-8. Amend the Zoning Ordinance to require a transition to lower density development for all land use within 500 feet of any permanent open space area or the future City edges, identified as the Sphere of Influence Boundary. The intent is to provide a reduction in the intensity of land use near the City edge so that there is a gradual transition from urban use to forest.

- Residential zones shall be amended such that one-half the normal intensity is permitted within 500 feet of the Sphere of Influence Boundary. The reduction in intensity can be achieved by increasing the size of each residential parcel or by clustering units and leaving a portion of the residential subdivision in open space.
- Non-residential zones shall be amended such that the required open space area within the developed parcel is increased by 50 percent within 500 feet of any permanent open space boundary. Open space area within the parcel may be increased by reducing the allowed building coverage, reducing the parking area, or permitting multi-story buildings.

3.3 BUILDING QUALITY AND DURABILITY

Policies: Building Quality

CD-P-6. New construction, and redevelopment of existing buildings, should use durable materials that will age well and will require minimal maintenance.

CD-P-7. Use of native materials and design features associated with the history of the area is encouraged.

CD-P-8. Life cycle costs of all buildings and public improvements shall be considered in all new construction.

Implementation: Building Quality

CD-I-12. The City will prepare guidelines for commercial, business-professional and residential building types that illustrate appropriate building materials and forms, such as overhangs and the placement of windows and doors.

CD-I-13. The Building Inspector will provide information to building permit applicants on suitable building materials and forms for the Portola area.

CD-I-14. The City will take the opportunity with City buildings and public improvement projects to demonstrate cost effective use of suitable materials.

CD-I-15. The City Planning Commission will consider the durability of materials and the appropriate use of materials in conjunction with other considerations in review of development applications.

3.4 CITY LANDMARKS AND GATEWAYS

The existing City boundaries are well-defined by natural land forms. Traveling west on Highway 70, one enters the east end of the City over a low pass that establishes a distinct entry to the City (refer to location "A" in Figure 3-3). Driving east from Delleker, one enters the City around a curve in the highway adjacent to the river, and the south side of the City where the rail museum buildings come into view (refer to location "B" in Figure 3-3). This approach provides a natural gateway and an attractive view up the river toward the Gulling Street Bridge.

Policies: City Landmarks and Gateways

CD-P-9. Enhance the visual impact of the natural features that mark the major entries to the City.

CD-P-10. Establish visual landmarks throughout the city that will guide visitors to major activity areas.

CD-P-11. Establish a hierarchy of street designs, including the street landscape, lighting, and signs, to help orient and guide people in the city.

CD-P-12. Retain views and public access to the river from Highway 70.

FIGURE 3-3
MAJOR GATEWAY ENTRIES

Implementation: **City Landmarks and Gateways**

CD-I-16. Work with Plumas County to establish design standards and land use controls on the unincorporated area in a corridor extending along Highway 70 and along the Lake Davis Road and County Road A-15 within 2 miles of corporate limits of the City.

CD-I-17. Acquire land at the east and west entries to the City along Highway 70 and install a gateway feature that includes major signs, a small visitors parking area, an information kiosk with information and directional signs, interpretive signs and a small picnic area.

CD-I-18. Establish a design standard for the gateway features that reflects the historic character of the town. This may include elements of railroad, mining, ranching, timber, or recreation, but is not intended that any gateway feature incorporate all of these elements.

CD-I-19. Establish a landmark and sign feature to direct people to the Old Town commercial area, the railroad museum and the Civic Center in highly visible locations throughout the City, including, but not limited to, the southwest corner of the intersection of Gulling Street and

Highway 70.

CD-I-20. Adopt design standards for the landmark features throughout the City. The design theme should reflect the historic heritage and the natural amenity of the area. The landmark features should include three dimensional components, lighting and signs.

CD-I-21. Establish requirements for providing landmark features in new development. Landmark features may include gateway elements and landscaping, special lighting and paving, and sculptural elements.

CD-I-22. Continue implementation of the City Improvement Matrix as amended as a design standard for major streets that differentiates them from small collector and residential streets through landscaping, signs, and lighting. Refer to the landscape guidelines for the City streets in this element and the street standards in the Circulation Element.

Policies: City-Wide Directional Signs

CD-P-13. Establish a City-wide sign program to establish a common design element and provide directional features to guide people in the city.

Implementation: City-Wide Directional Signs

CD-I-23. Adopt a public directional sign program that includes three dimensional elements as well as signs. The intent is to establish a common design theme throughout the City. At a minimum, the public directional sign program will include directions to City Hall, the library and parks, the sheriff's substation, the Railroad Museum, Old Town and the hospital. The sign program will include a standard lettering style and color, and background color and base materials so as to provide a uniform image that is easily recognizable as part of the City program.

3.5 NEIGHBORHOOD CONSERVATION AND DEVELOPMENT

The City contains many old neighborhoods that predate the common use of automobiles. The character of these neighborhoods is small, individualized homes that reflect the distinctive tastes of many occupants over several decades. The General Plan goal (CD-12) is to enhance the existing neighborhoods and restore or replace the existing housing stock. The underlying purpose of this goal is to create more attractive neighborhoods that will retain property values and encourage private investment in individual properties.

FIGURE 3-4
TYPICAL RESIDENTIAL STREET

Policies: Residential Neighborhoods

CD-P-14. Encourage neighborhood revitalization and improvement including replacement, renovation, or conversion to alternative use of buildings in serious disrepair.

CD-P-15. Encourage designs for new construction and renovation that are compatible with the adjacent buildings and the existing residential scale and character of the neighborhood.

CD-P-16. Improve the overall streetscape in residential neighborhoods by providing improvements such as a public sidewalk, street lighting, and directional signs, in accordance with the City Improvement Matrix as amended.

CD-P-18. Actively enforce the Municipal Ordinance sections regarding trash collection and disposal in residential yards, and the replacement or renovation of dilapidated or unsafe buildings.

Implementation: Residential Neighborhoods

CD-I-25. Assist in the organization of neighborhood associations for the purpose of identifying and implementing local improvement projects. Assistance may include the provision of mailings, meeting facilities, and research.

CD-I-26. Maintain a category in the annual municipal budget for local improvements such as street tree planting, annual clean-up days, sidewalk installation and repair, and similar local activities to enhance the visual quality of the City.

CD-I-28. Establish an inventory of dilapidated properties as candidates for restoration or removal.

CD-I-29. Identify sources of funding and community support for restoration of residential properties for low income households.

3.6 CIVIC CORE AND PUBLIC SPACES

It is anticipated that Portola will grow as the economic center and an attraction to visitors to Eastern Plumas County. The City needs an attractive core area that can accommodate large numbers of visitors without detracting from the quality of the natural environment and the quality of life for residents. This will be done by maintaining the compact form of the major institutional and commercial uses, by designating the core area as an extended "visitor's center", and by establishing high quality building design and amenities throughout the core area. The general boundaries of the core area are shown in Figure 3-5.

Policies: Civic Core and Public Spaces

CD-P-19. The existing civic core area, including City Hall, the post office, library, sheriff substation, Courthouse, and City Park shall remain the institutional center of the City. The City will seek to expand the City offices as necessary to keep pace with the service demands of increased population.

CD-P-20. Design standards for public buildings and streetscape will reinforce the significance of the civic core area as the public center of the City.

CD-P-21. The commercial core area of the City, including Highway 70, Commercial Street, the Railroad Museum area, and the civic center core will provide multiple locations to accommodate visitor activities. The intent is to enable the City to host large single events in multiple centers of activity, such as a craft or music festival, or to host different small but concurrent events.

CD-P-22. The multiple venue locations will be linked by a vehicle and pedestrian system and accessible by public transit and parking.

Implementation: Civic Core and Public Spaces

CD-I-31. Invest in expansion of public services and other civic uses into the core area.

CD-I-32. Provide support uses, such as parking, pedestrian spaces and sidewalks, and public transit access to ensure that the civic core area remains viable.

CD-I-33. Adopt a Public Events Master Plan to identify multiple event centers and define their potential function. The Public Events Master Plan will include an operations component for coordinating multiple venue events and a facilities component that describes the venues and their supporting services and infrastructures.

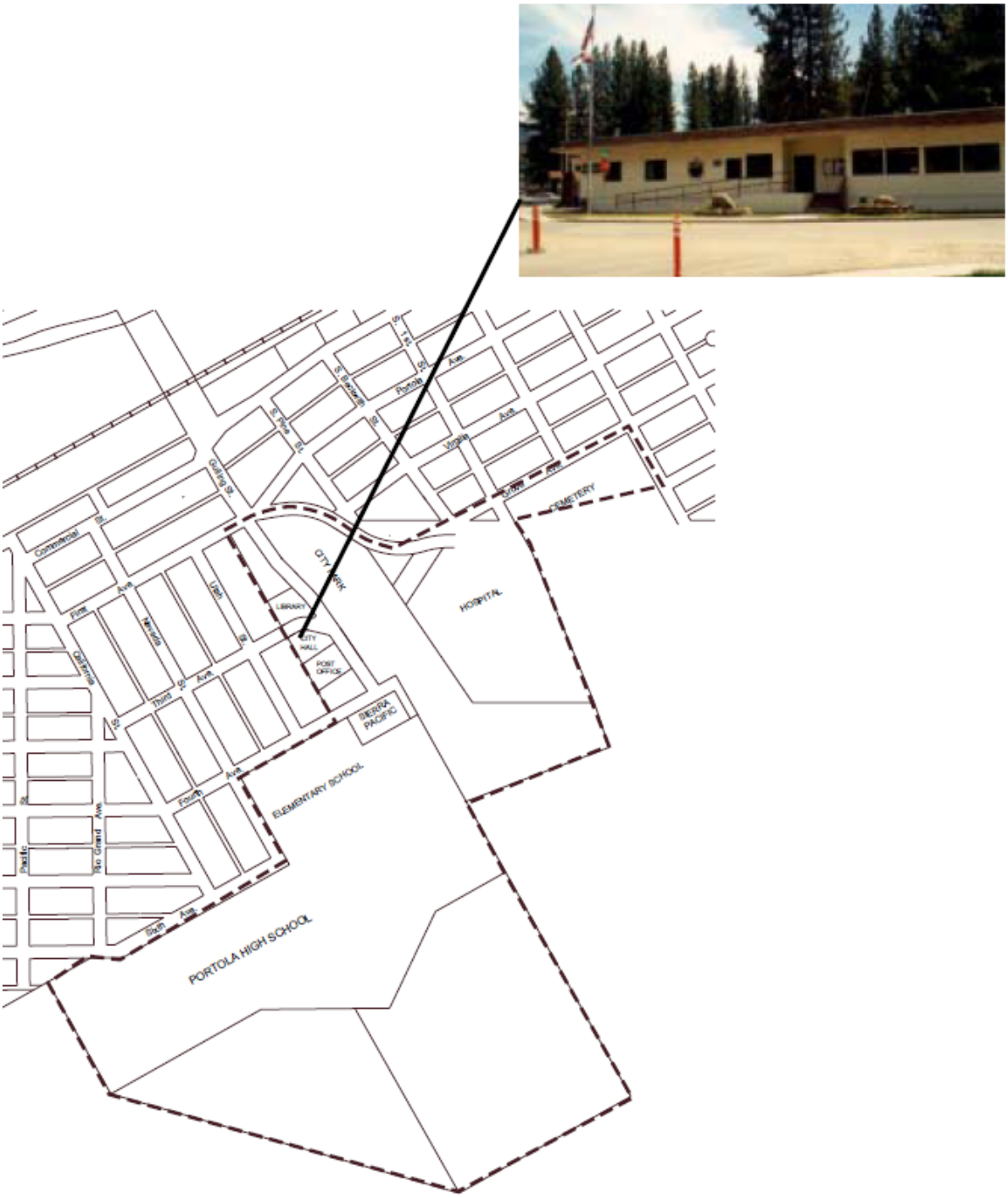
CD-I-34. The Public Events Master Plan will be coordinated with the General Plan Circulation Element to ensure that the pedestrian circulation plan provides:

- Public spaces that include pedestrian scale lighting, signage, and sidewalks. Benches and seating areas will be included along pedestrian ways that connect major activity areas, such as the Old Town area and the River Park.
- Drinking fountains and public restrooms or temporary comfort stations will be provided in appropriate public areas.
- Space for street vendors and for viewing areas overlooking the rail yard.

CD-I-35. Identify the network of parking areas, pedestrian connections, public transit stops, and public activity spaces in the Public Events Master Plan.

CD-I-36. Establish a center for public events and recreation along the river. The event center is intended to provide a central place for coordination of multiple venue events, as well as a central activity center for single events, and a year round recreation and cultural center for City residents.

FIGURE 3-5
CIVIC CORE AREA



3.7 DESIGN STANDARDS: COMMERCIAL AREAS

Design standards for the commercial areas are closely linked with the standards for the civic core and public spaces. In part, the intent is to provide public spaces within the commercial core area that encourage public activity and patronage of the retail and service businesses.

There are two distinct commercial areas, Old Town and Sierra Street. Old Town is envisioned as a small scale retail and service area with restaurants, small shops, and service for tourists as well as local residents. The proximity of the Railroad Museum offers special opportunities for visitor oriented services and retail. A high level of pedestrian amenities (including broad sidewalks, shade, seating, fountains, low level lighting) will establish a unique character for this commercial area.

Sierra Street and the adjacent side streets will provide the more conventional business center for the City and the region. Auto oriented businesses catering to local residents, as well as travelers along Highway 70, will be the primary uses in this area. Although it is a primary traffic route of regional significance, the Sierra Street corridor should incorporate pedestrian amenities as well. Continuous sidewalks setback from the street edge, shade structures, seating areas, and pedestrian scale lighting and signs will provide a more pedestrian friendly corridor.

Policies: General Commercial

CD-P-23. Establish design and standards to retain and enhance the Old Town core area and Sierra Street corridor as the primary commercial and tourism centers in the east Plumas region.

CD-P-24. Establish quality design of buildings on Commercial Street and the Sierra Street corridor to identify them as the center of primary commercial activity.

CD-P-25. Signs and lighting for commercial and office uses will contribute to a common theme element that becomes a visual symbol for the City.

CD-P-26. Encourage preservation and enhancement of commercial buildings with architectural character or historic significance.

Implementation: General Commercial

CD-I-39. All applications for commercial use pursuant to the Municipal Code will be required to show the location and features of any exterior space intended for public use.

CD-I-40. All applications for commercial use pursuant to the Municipal Code will be required to show access to parking and the pedestrian route to the parking area.

CD-I-41. Adopt guidelines for commercial buildings that reflect the history of the region, and compatible with the climate.

Policies: Old Town Commercial Area

CD-P-27. Establish a special pedestrian area in Old Town to accommodate tourism and shopping and services for local residents.

CD-P-28. Provide a direct, clear, and convenient pedestrian connection between Commercial Street and the Railroad Museum.

CD-P-30. Provide additional parking on the perimeter of the Old Town areas along First Avenue, and in other convenient locations.

CD-P-31. Provide convenient pedestrian connections between parking areas and the Commercial Street businesses.

CD-P-32. Accommodate artists' studios and sales within the Old Town area.

Implementation: Old Town Commercial Area

CD-I-42. Adopt a Street Lighting and Sign Program for placement of a unique sign and lighting standard in all commercial areas along Sierra Street. The program will adopt a lighting and sign structure standard that will be a form and constructed of materials that evoke the history of the City and surrounding area. The form will include one or two standard locations for placement for individual business signage, and a lighting fixture that casts light downward on the sidewalk and the adjacent street. Business signs will be front lighted and must be within size parameters and proportions established by the City program.

CD-I-43. Adopt standards and an improvement plan for Commercial Street that includes at a minimum:

- pedestrian level street lighting;
- special sidewalk pavement or a boardwalk along the store fronts;
- crosswalk signs, striping and special paving;
- street furniture including benches, trash collection containers, directional and interpretive signs;
- designated areas for street vendors, performing arts, and train watching;
- guidelines for building facades, window and door treatments;
- canopies over the storefront sidewalks;
- street trees;
- on-street parking.

CD-I-44. The City will work with the merchants and landowners in the Old Town area to install a street lighting program consistent with the pedestrian use of the street and the "Old Town" theme.

CD-I-45. The City will work with the Railroad Museum Association to improve the visibility and attractiveness of the main museum buildings when viewed from Highway 70.

CD-I-46. Encourage the Railroad Museum Association to include a landmark architectural element, such as a clock tower, in the museum facilities.

CD-I-47. Develop a reuse plan for the former railroad hospital site for commercial or public access uses that will include attractive new structures and landmark elements.

CD-I-48. As additional commercial uses develop, adopt standards and an improvement plan for a landscaped corridor along First Street, Second Street, Pacific Street, California Street and Main Street to provide a pedestrian corridor from the west end of Commercial Street to the museum.

The commercial uses along the south side of Sierra Street are a special condition because of the interface with the river. The Sierra Street corridor has the unique advantage of being contiguous to the Feather River along a substantial portion of the reach through the City. This provides very attractive views and opportunities for access to the river corridor. The River Park extends for one half mile from Beckwith Street to the US Forest Service Park. The Feather River is a special resource because it retains the character of a relatively unimproved water course. As a federally designated Wild and Scenic River, the Feather River has a natural, scenic quality. Unlike many communities that developed with buildings facing away from a natural amenity, such as the river, Portola retains undeveloped edges along the north bank of the river. This provides opportunities that are unique to Portola for recreation, public open space, and a strong identity. The purpose of these design standards is to ensure that the future development of commercial use along the south side of Sierra Street will take advantage of this unique opportunity by providing access and an attractive interface with the open space corridor. The intent is to provide a distinctive character for Sierra Street that relates to the river, and to the role as "main street" for the east Plumas Region.

Policies: Sierra Street and Riverfront Commercial

CD-P-33. Pedestrian and bikeway connections will be provided by businesses between Sierra Street and the River Park corridor from the west gateway to the USFS park.

CD-P-34. Businesses will provide a view toward the river from the main sales or dining area where feasible. Decks and terraces oriented to the river are encouraged.

CD-P-35. Refuse, storage and service areas will be screened and/or located to have minimum visual impact from the river.

CD-P-36. Small scale signs oriented to the river that identify the business will be allowed pursuant to special use permits.

CD-P-37. Businesses that provide services and products, such as food service or equipment rental, related to the recreation opportunities along the river are encouraged.

CD-P-38. View corridors to the river will be maintained by controlling the spacing of buildings along the south side of Sierra Street so as to provide periodic openings between buildings.

CD-P-39. The City shall continue to seek to acquire land for recreation and public purposes.

Implementation: Sierra Street and Riverfront Commercial

CD-I-49. The City will implement a program to support installation of a sign and lighting structure along Sierra Street. The location of the structure will be coordinated with adjacent landowners, but will be placed to facilitate spacing the structure at approximately regular intervals along the street.

CD-I-50. City review of any building permit for new construction or renovation, conditional use permit, rezone or other entitlements for commercial use along the south side of Sierra Street shall consider:

- siting with respect to the views toward the river;
- orientation of sales areas, dining areas, terraces and decks overlooking the river;
- pedestrian access corridors between Sierra Street and the river corridor within blocks;
- pedestrian walks between the businesses and the River Walk pathway;
- provision of small signs oriented to the river to identify the businesses;
- provision of amphitheater seating or other seating areas overlooking the river.

Historically, industrial uses within the City were few, and primarily related to railroad operations. Office uses are typically located in small buildings in the commercial areas. The General Plan is based on the premise that the quality of life in the City will attract new businesses not previously associated with the community. Such businesses will include office uses, light manufacturing, and assembly. The City currently offers very little land area, and few improved buildings suitable for such businesses. They will require relatively small, affordable space to become established and grow. Perhaps more important, the space will need to be of high quality and amenity to attract and retain quality businesses.

The Land Use Element identifies new land use categories for businesses, including Commercial Mixed Use (CMU) and Business Professional-Light Industrial (BP/LI). The Land Use Diagram (Figure 2-2) designates specific locations within the City to accommodate these uses.

These design standards are intended to ensure that the business professional offices and light industrial uses are compatible with the natural setting, functional in the emerging telecommunication technologies, and distinguished by a high level of amenities.

Policies: Business Professional and Industrial

CD-P-40. Encourage the development of high quality business professional and industrial parks that accommodate a range of small business activities.

CD-P-41. Business and industrial parks will provide an attractive landscape and sign program including directional signs and major entry features.

CD-P-42. Truck access and storage areas will be screened from view from the primary street frontage and any adjacent residential use.

CD-P-43. Business and industrial parks will provide pedestrian and bicycle access and bicycle parking.

CD-P-44. Business and industrial parks will be designed to be integrated with the natural setting to provide an attractive work place and minimize the impact on the environment.

Implementation: Business Professional and Industrial

CD-I-51. City review of any building permit for new construction or renovation, conditional use permit, rezone or other entitlements for business professional and industrial use shall consider:

- siting with respect to natural features such as creeks, meadows, rock outcroppings and significant trees in the adjacent forest;
- the scale of the proposed buildings relative to adjacent land uses;
- location of truck access and storage areas;
- pedestrian access, and bicycle access and parking areas;
- location of and character of major signs and landscape features, and directional signs.

CD-I-52. The City will designate the location of major sign and gateway features for business and industrial park locations.

4. CIRCULATION ELEMENT

The Circulation Element deals with the physical infrastructure of transportation, including the streets, bikeway and pedestrian networks. It also deals with the programming and operation of the circulation system, such as rideshare programs and the operation of transportation systems.

Authority

The Circulation Element is authorized in Government Code Section 65302(b) that states that the General Plan is required to include:

> *"A Circulation Element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the plan."*

The statute specifically identifies public utilities and facilities as components of the Circulation Element, but permits jurisdictions to organize elements in a manner appropriate to the community. The Portola General Plan addresses the public infrastructure, including sewer, water, energy, and utilities, in the Public Facilities and Infrastructure Element.

Relationship to Other General Plan Elements

Circulation and land use are closely linked elements that provide the framework for much of the General Plan. The location and intensity of land uses determines the need for circulation system components and, in turn, the capacity of the circulation system often determines the location and feasibility of land use. In combination with land use, the circulation system may affect air quality, plant and animal habitats, environmental noise, energy use, community appearance and other environmental considerations.

Coordination between the Land Use Element and the Circulation Element:

- encourages walking and bicycle trips by promoting a compact urban form with neighborhood destinations close to residents;
- makes public transit feasible through coordination of the intensity and location of land uses; and
- reduces the length and number of vehicle trips outside of the community by promoting mixed-use development and by providing employment centers, shopping and services within the City.

Relationship to Regional Transportation Programs

The circulation system in the City is linked to the circulation network in Plumas County and beyond. Planning for future circulation improvements must address the existing and planned roads, bikeways, and transportation services that extend beyond the City. This Circulation Element is intended to be compatible with the Regional Transportation Plan for Plumas County, 2000.

4.1 KEY CIRCULATION ISSUES

Individual Independence

Flexibility and personal independence are characteristics of the existing circulation system. People are accustomed to using personal automobiles to travel at will. The circulation system must retain this level of independence, but also seek to include alternatives that will reduce reliance on automobiles as the primary mode of transportation.

Economic Development

The circulation system will play a significant role in fulfilling the tourism and economic development goals established in this General Plan. The system must provide clear and convenient access for tourists, visitors, and travelers along Highway 70. Elements of the circulation system, such as the improved bike paths, the mountain bike trails, a local shuttle system and the rail road, not only serve a transportation need, but may also be an attraction to visitors.

Tourism and regional service businesses will be a growing component of the local economy. The circulation system must provide convenient access for business patrons in the form of parking and direct access routes. For the tourists, the circulation system must not only provide access, but should also become an attraction by providing special travel modes and experiences. In order to successfully serve tourists, the circulation system must be easy to navigate to points of interest, and must provide short-term parking and local transportation.

The circulation system can enhance the potential for economic development in the City by providing transport for goods and services and by providing convenient travel for workers to jobs. Within the City and the neighboring areas the emphasis is on making the trip to work convenient and safe, and facilitating alternatives to the single occupant automobile.

Local economic growth can also occur through local residents working outside the community. Commuter bus services, ride sharing and other measures that enhance the opportunity to work outside the community can indirectly enhance the local economy in the short term by raising the income of residents. However, in the long term, a large percentage of out commuting workers will diminish the potential growth of the local economy. The ultimate objective is to establish a strong local economy that relies on a resident work force employed in the City and neighboring area. Refer to Section 2.6 in the Land Use Element for additional discussion of the jobs and housing balance in the City.

Time Horizon

Perhaps more than other elements in the General Plan, the Circulation Element must take a very long term view. Physical infrastructure, such as the road system, establishes a framework that is very difficult to alter. Land uses may change and buildings be torn down and reconstructed, but the route of the public streets and utility corridors are typically fixed in place over time. Therefore, the circulation system components must be carefully considered for their long-term impacts on land use and community form. Moreover, many major infrastructure components, such as a bridge crossing or major new road, are relatively expensive and must be planned long in advance in order to accrue sufficient funding. For these reasons, the Circulation Element, particularly that portion addressing major infrastructure improvements, must look beyond the twenty-year horizon typical of other elements in the General Plan.

Safety

Safety is a fundamental goal for all components of the circulation system. Conventional design standards typically address the safety requirements for streets, bicycle paths, and pedestrian networks. However, Portola has specific needs that require special attention to safety concerns. These include the need to design safe routes for evacuation in emergencies, and the special design considerations for streets and bike and pedestrian paths in mountainous, winter conditions. The special conditions in Portola also relate to the intent to accommodate a mix of bicycles, pedestrians, and vehicles of various types. Special conditions also will occur when the City is the site of special events that accommodate large numbers of visitors.

Multi-modal System

The circulation system will be more efficient and will provide better flexibility and conveniences if all modes of transportation are coordinated. This means that different modes connect at central locations where people can easily transfer from one mode to another. An example would be to establish a transit center where a regional bus, a park-and-ride lot, a local shuttle, a jitney or cab service, a primary pedestrian path, and a primary bicycle path can all connect. The different modes must also be coordinated in time so that the connections are convenient.

Cost Effective

Travel and movement of goods and utilities requires expenditures of money, energy, and time. An efficient circulation

system serves to minimize these expenditures by reducing the need for travel, and by reducing the time and distance of necessary travel. Reduction of travel can be accomplished by clustering travel destinations (retail, services, schools, and so on) close to the residents' home so that walking or public transportation is feasible. The Land Use Element where the land uses that attract traffic are clustered in a compact urban form that will facilitate the use of public transportation and walking.

An efficient circulation system will also help to reduce the expenditure of public funds for new construction through design that reduces the length and width of roads to the minimum actual requirement. The General Plan Land Use Element will help minimize the need for new infrastructure expenditures by maximizing the use of, and by directing new development to the existing roads.

Energy Efficiency

Fuel required for transportation is a significant energy demand in any community. Relatively low fuel costs have enabled expansion of substantial development throughout California. However, small, relatively remote communities such as Portola are particularly vulnerable to increases in fuel costs. Fuel costs typically tend to be higher in such communities, and if fuel prices increase, as is likely over the next two decades, the effect can seriously hinder economic stability and development. Higher energy (fuel) costs will demand more of individual household incomes for typical daily travel, and may make it uneconomic to travel to jobs outside the area, therefore, residents may be forced to relocate. The use of ride sharing and other trip reduction methods will reduce dependence on increasingly expensive fuels. The policies in this Circulation Element encourage trip reduction methods as a means to reduce dependence on expensive fuels before they become prohibitively expensive and diminish the economic potential and quality of daily life in Portola.

Higher fuel costs may also diminish the level of services as businesses and suppliers find it uneconomical to deliver goods and services to the area. Finally, and perhaps most serious, is the potential loss in tourism as people reduce their travel due to the high cost of fuel. Fuel prices will be determined far beyond the influence of this City, but the General Plan must seek to minimize the vulnerability to energy costs by developing alternative modes of travel within the City and facilitating alternative means for tourists to travel to the area.

Impact on Natural Features

The circulation system must include design standards that minimize the physical effect of circulation improvements on the natural environment, and the need to design systems that are safe and functional in the winter.

Air Quality

Unlike many urban places, vehicle traffic has not been the primary source of air pollution in Portola. However, the climate conditions that create the winter air pollution problem indicate the potential for increased pollution within and near the City. Measures designed to minimize reliance on vehicles are necessary to reduce the potential for air pollution increases in the community.

4.2 CIRCULATION GOALS

The goals for the circulation system reflect the broader the goals of this General Plan. These include improvement of the existing community, economic development, expanded tourism, aesthetic quality in the built environment, public and personal safety, and environmental protection.

Goal C-1. Upgrade all existing streets to current improvement standards.

Goal C-2. Extend the circulation network, including streets, bike and pedestrian paths, and transit routes to in-fill areas and new growth areas in a manner that is energy and cost efficient, safe, and minimizes impact on the natural environment.

Goal C-3. Improve the circulation network, including streets and parking, rail, transit, and pedestrian paths to

enhance economic development and tourism.

Goal C-4. Expand transportation alternatives within the City, including public transit, walking and bicycling.

Goal C-5. Expand the circulation system to accommodate and attract new businesses and visitors (tourists).

4.3 LEVEL OF SERVICE STANDARDS

The effectiveness of the streets to carry traffic is measured by a standard evaluation criterion, the Level of Service (LOS). Traffic engineers use LOS as a quantitative measure to describe traffic conditions, and as a means of evaluating future traffic conditions. Level of Service is a measure of the existing or projected traffic compared to the theoretical capacity of the street or intersection to safely accommodate traffic. Factors taken into consideration include volume of traffic, street and intersection design, signal timing, and other variables. Each LOS is assigned a letter, ranging from "A" (less than a 5 second wait at intersections and no restrictions on speed along arterials) to "F" (delays of more than one green cycle at intersections and "stop and go" movement along the street). LOS is normally used to describe the morning or afternoon peak-hour conditions when traffic is the heaviest. Table 4-1 describes the Level of Service categories.

The LOS criteria are useful aids in identifying potential problems with street capacity, and the land uses that generate traffic. However, LOS is a generalized evaluation tool and must be tempered by interpretation of local conditions. For instance, minor adjustments in the timing of a traffic signal, adding turning lanes, limiting the points of access from adjacent properties and other modifications can improve the actual operation of a given street or intersection.

The current traffic conditions in Portola do not normally approach the levels experienced in more urban areas. Most existing streets and intersections in Portola operate well within the range of LOS C or better, although the Plumas County Regional Transportation Plan (2000) identifies SR 70 (Sierra Street) within the City operating at LOS D during peak traffic conditions. The Caltrans "Guide for the Preparation of Traffic Impact Studies" (Guide) states that Caltrans endeavors to maintain a target LOS C on State Highway facilities. The Guide is consulted when State Highways are affects.

4.4 STREET NETWORK AND CLASSIFICATION

The street system in Portola consists of three general classes of street:

- local, small scale streets that serve the residential neighborhoods;
- local, rural roads that serve the low density residential areas; and
- larger collector and arterial streets.

Much of the existing street system was built before private automobiles came into common use. The streets follow a grid pattern established when the City was originally platted in 1909. The grid does not relate to the topography and many streets stop at a ravine or steep slope. This results in discontinuous streets in portions of the older City. These areas were subdivided into individual lots, but have no streets or other public improvements to serve those lots. The street pattern developed outside the original grid pattern is typically circuitous and follows the natural terrain. At the perimeter of the City the grid pattern transitions to an informal pattern of rural streets flanked by larger lots.

The street system was not designed to accommodate modern traffic, or to park cars on residential lots. The narrow, residential lots found on older streets typically do not have sufficient width for a driveway, and on-street parking and snow removal are not convenient. The streets are laid out in short blocks only 350 feet long by 300 feet wide. This enables people to walk in relatively direct routes within the City, but it requires a substantial amount of land to be paved, and is not practical in steep terrain.

The majority of the 14 miles in the Portola road system existed at the time the City incorporated in 1946. This includes .55 miles of paved major collector street, 4.43 miles of paved minor collector street and 15.92 miles of paved local

streets, as shown in Figure 4-1. Minor arterial streets are important routes for intra-county regional circulation. In Plumas County, the minor arterial circulation system consists of all State Routes including: SR 70, 89, 36, 147, 49, and 284. Only SR 70 (Sierra Street) directly affects Portola.

SR 70 (Sierra Street) is the primary street through the City. The highway has a 100 foot right of way through the center of the City, but flares to 120 foot wide right-of-way at the east of the City and 160 foot wide right of way to the west. The highway was widened to four lanes in 1997 with full curb, gutter and side walk along portions of the street. Curb, gutter, and sidewalk improvements were not installed where the highway abuts a driveway or parking apron. The back of the sidewalk abuts the property boundary and fronts individual buildings in some locations. On-street parking occurs where there is a curb, and in those locations there is no room for additional parking in front of buildings.

Major collector streets provide greater access to more localized destinations for regional circulation. These streets typically are designed to provide access for regional traffic between the State Routes. In Portola, only West Street (Lake Davis Road) is designated by the County Regional Transportation Plan as a major collector.

Minor collector streets provide additional access to local attractions for regional traffic and serve as local collectors for the residential street system. The County Regional Transportation Plan identifies Beckwourth Street, Gulling Street, Commercial Street, First Avenue, Fourth Avenue, Sixth Avenue, Pacific Street, Main Street, and County Road A-15 as the primary collector streets in the existing street system. Traffic within and outside the City cause these streets to function as collectors although they have the standard 60-foot wide right-of-way found on all City streets.

TABLE 4-1
TRAFFIC LEVEL OF SERVICE CONDITIONS

Level of Service	Traffic Flow Conditions	Maximum Volume to Capacity Ratio
A	Conditions of free flow, speed is controlled by driver's desires, stipulated road speed limits, or physical roadway conditions.	60%
B	Conditions of stable flow; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.	70%
C	Conditions of stable flow; speeds and maneuverability more closely restricted; occasional backups behind left turning vehicles at intersections.	80%
D	Conditions approach unstable flow; tolerable speeds can be maintained but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low.	90%
E	Conditions approach capacity; unstable flow with stoppages of momentary duration; maneuverability severely limited.	100%
F	Forced flow conditions; stoppages for long periods; low operating speeds. Delays at intersections average 60 seconds or more.	more than 100%

Street Conditions

A study of existing street conditions (Bastian Engineering, November 19, 1998) indicates that several older streets are in need of repair due to deteriorating sub base, deteriorating pavement, and other serious conditions. These streets will require upgrading in order to maintain a minimum standard of maintenance. In addition, many street sections were never constructed and remain unimproved. Many other streets exceed 6% grade and are difficult to travel during snow and ice conditions. The streets in need of repair are shown in Figure 4-2.

Repair or reconstruction of these streets is essential to maintain the current level of service and to avoid significant on-going maintenance costs. A fundamental objective of the Circulation Element is to upgrade the existing streets to current standards and to extend the unimproved streets in the in-fill areas described in the Land Use Element, notably Section 2-6.

4.4.1 Street Standards

Extension of local streets to serve new development in the areas at the perimeter of the City requires design standards and street patterns that are more responsive to the terrain and environmental conditions. These street standards may be different from the existing streets in the older parts of the City. The new streets will typically extend into forested areas that are somewhat steeper than the developed portion of the City. Therefore, the street system needs to be more flexible, both in alignment and street width than the historic street standards.

Each classification of City street is designed to standards appropriate to the conditions and intended use. In general, the standards use the minimum level of street cross-section needed for traffic safety and emergency access and evacuation. The intent is to minimize grading and the amount of land paved for streets. In addition to requiring less grading and paving, narrower streets will tend to slow traffic, and may indirectly discourage vehicle use. Where combined with a convenient and safe pedestrian route, narrow streets will encourage residents to walk rather than drive. Beyond fundamental traffic safety concerns, street design should emphasize ease of maintenance, ease of snow removal, simplicity of construction, visual character, and pedestrian access. Ease of maintenance suggests a relatively narrow paved section and simple rolled curb and gutter, or no gutter in rural settings, rather than the more formal standing curb.

Street standards for various conditions existing or expected to occur in Portola are summarized in Table 4-2.

FIGURE 4-1
EXISTING MAJOR STREETS

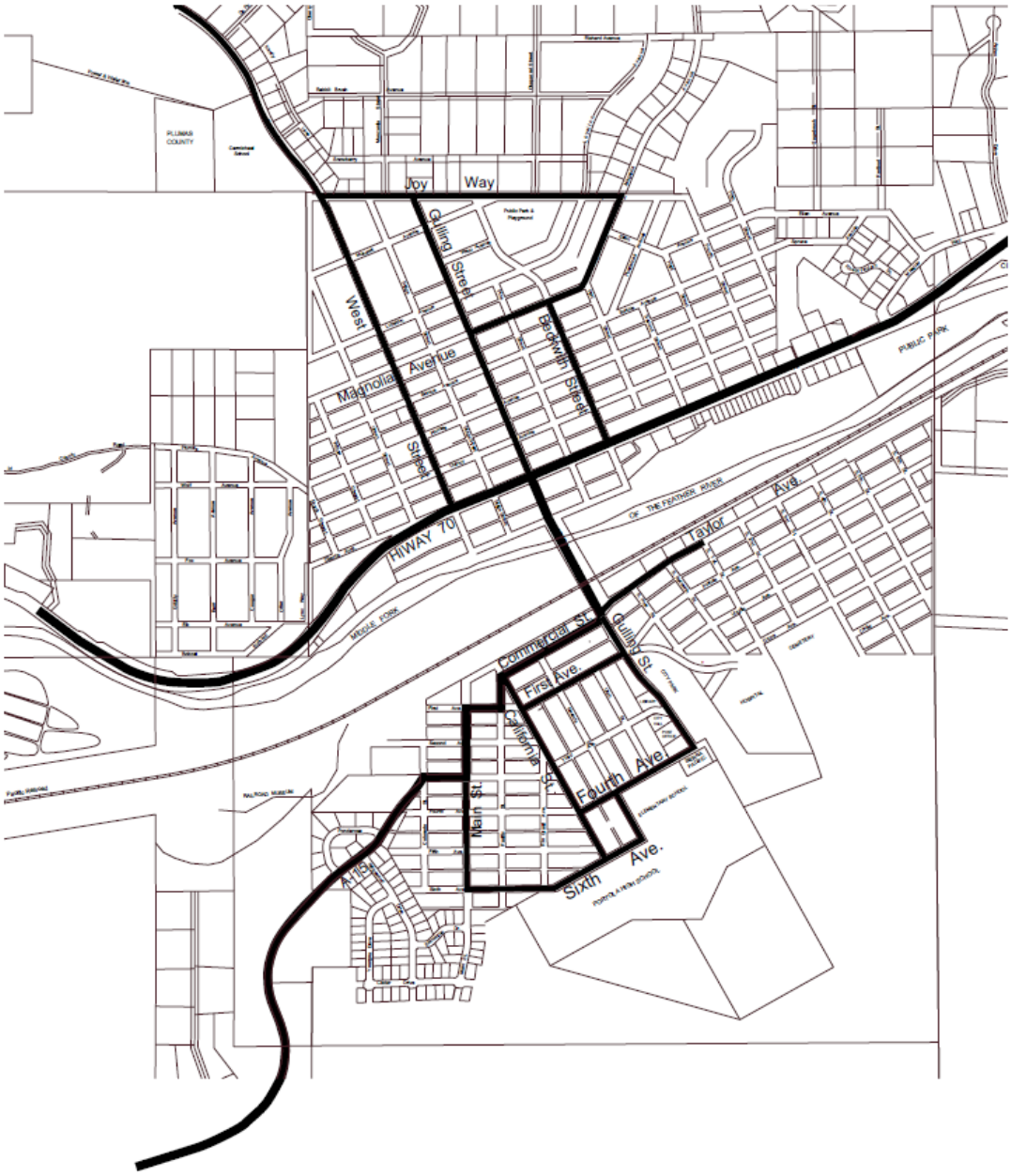
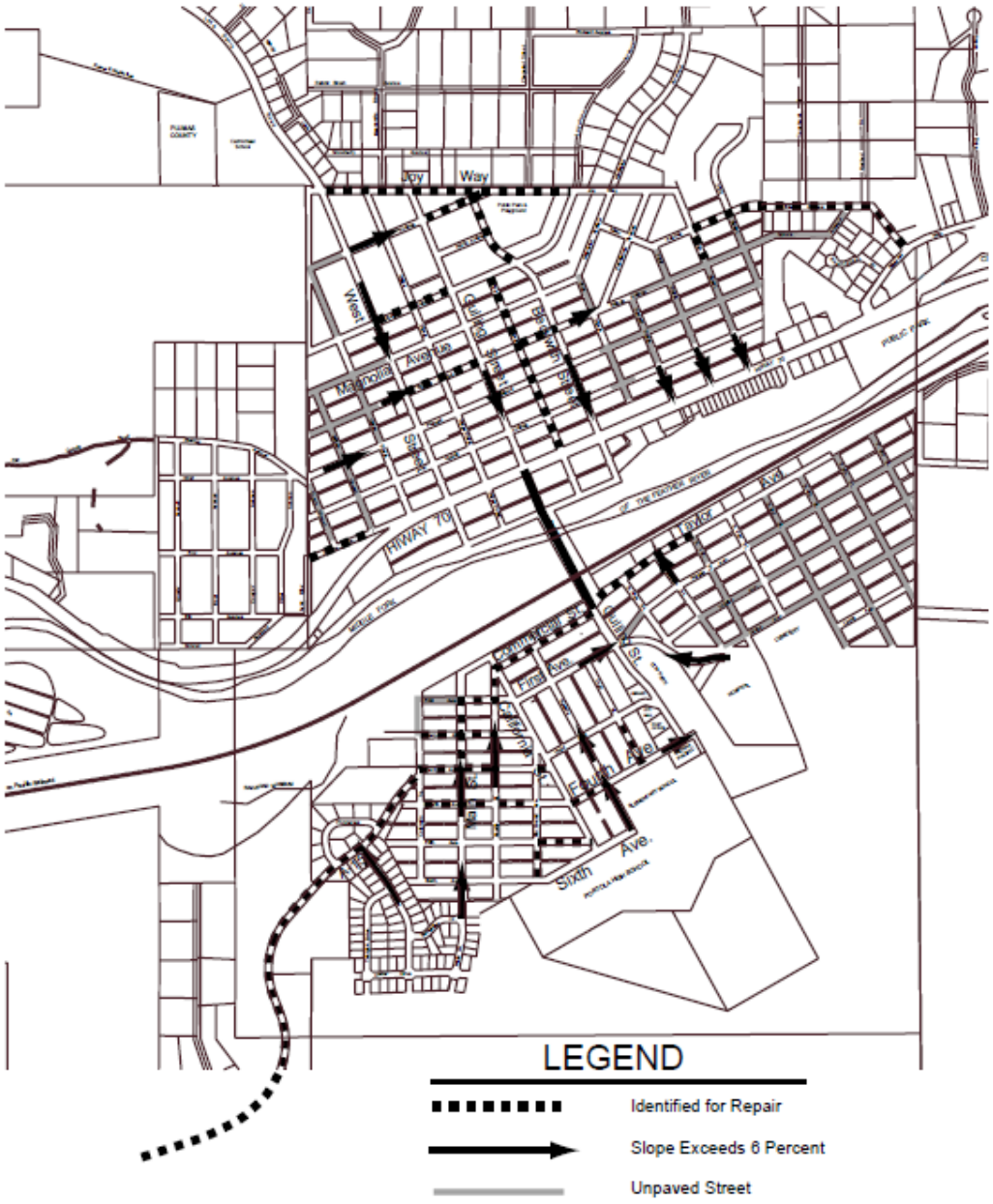


FIGURE 4-2
EXISTING STREETS IN NEED OF REPAIR OF NEW CONSTRUCTION



Minor Arterial and Collector Streets

The level of new residential and employment growth anticipated in the General Plan Land Use Element will not lead to urban type development experienced in many other communities. Consequently, the volume of traffic associated with major arterial streets in urban areas is not anticipated. There will be a need for streets capable of carrying traffic at volumes and speeds greater than acceptable in typical residential areas. Therefore, arterial and collector street standards are planned to accommodate these higher demand levels should they occur as the community grows. Cross-section diagrams of the minor arterial street and the collector street classification are shown in Figures 4-3 and 4-4 respectively.

Urban Residential Streets

The typical street in residential neighborhoods must be sufficiently wide to carry local traffic at relatively slow speeds (25 m.p.h. or less). The street should allow for on street parking and a public sidewalk. The streets should be designed to facilitate snow removal and storage. A cross-section diagram of the urban residential street is shown in Figure 4-5.

Low Density Residential Streets

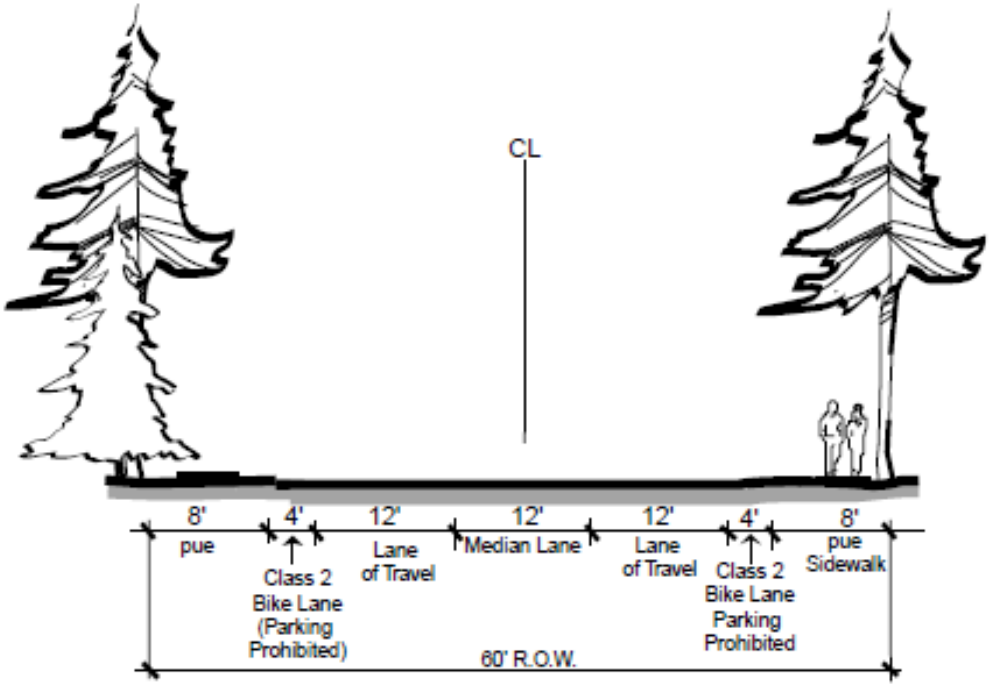
Extensions of local streets to serve new development areas require design standards and street patterns that respond to the terrain and environmental conditions. The new streets will typically extend into forested areas that are somewhat steeper than the developed portions of Portola. Therefore, the street system needs to more flexible than the existing street standards, both in alignment and street width. A cross-section diagram of the low density residential street is shown in Figure 4-6.

TABLE 4-2
SUMMARY OF CITY STREET CLASSIFICATION

	Low Density Residential Lane	Urban Residential Street	Collector Street	Minor Arterial Street
Purpose	Rural street serving less than 150 dwelling units.	Urban street serving less than 500 dwelling units.	Collector street serving more than 500 dwelling units, and commercial uses.	Arterial providing a major through route.
Design capacity	Less than 1500 ADT	Less than 5000 ADT.	Less than 5000 ADT	5000 to 7500 ADT
Right-of-way	44 ft.	52 ft.	60 ft.	60 ft.
Travel lanes	2	2	2	2
Center Turn lane	none	none	none	yes
Travel Way pavement Width	20 ft.	24 ft.	24 ft.	varies (24 ft. to 36 ft.)
Pavement Width Including Parking or Bike Lane	20 ft.	34 ft.	32 ft.	40 ft.
Total Shoulder Width (each side)	4 ft.	9 ft.	14 ft.	4 ft.
Bikeway	none	Class 3	Class 3	Class 2
Curb and Gutter	none	yes	yes	yes
Sidewalk	none	yes	yes	yes
Parking Permitted	no	yes	yes	yes

ADT = Average Daily Traffic

FIGURE 4-3
MINOR ARTERIAL STREET



*pue is a Public Utility Easement

FIGURE 4-4
COLLECTOR STREET

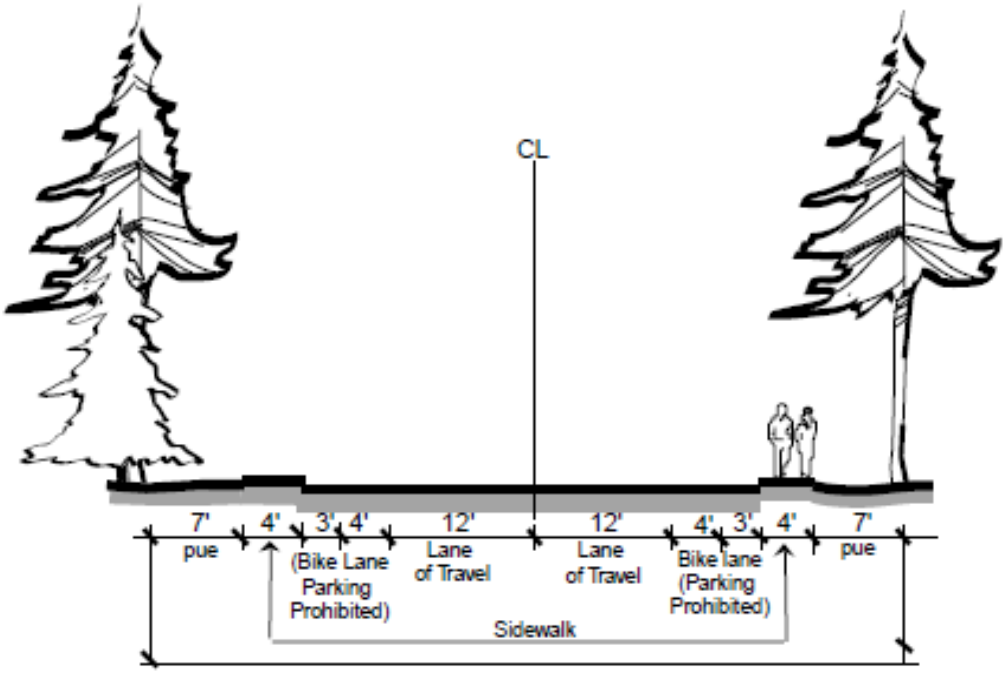


FIGURE 4-5
URBAN RESIDENTIAL STREET

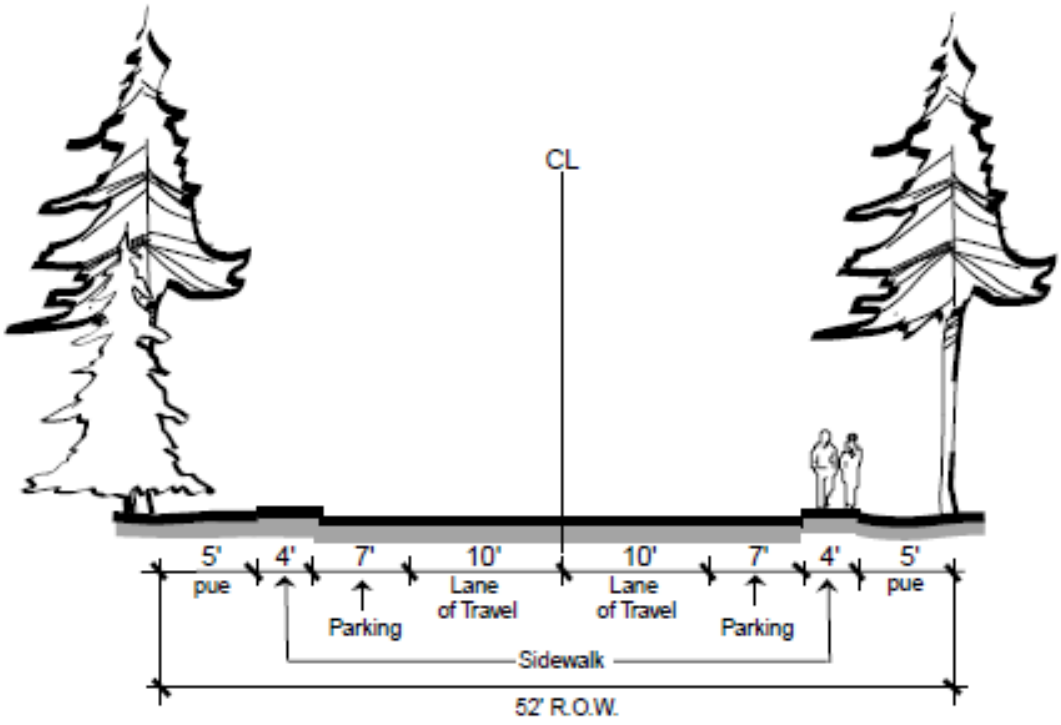
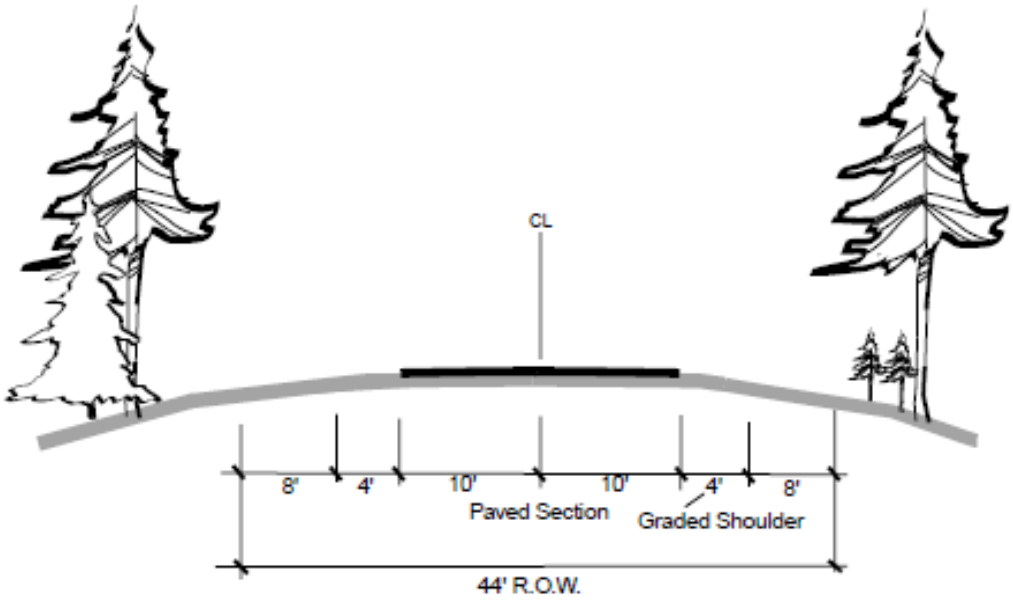


FIGURE 4-6
LOW DENSITY RESIDENTIAL STREET



Traffic Calming

Traffic speed is a concern where local and collector streets are relatively straight and there are few intersections. Within the developed portions of the City, in residential and school areas, and where there pedestrian crossings or sidewalks along the street, it is desirable to slow traffic to safe speeds. This is accomplished through "traffic calming" measures. These may include signalized or signed intersections, round-abouts and traffic circles, and other physical improvements that cause drivers to slow and be more aware of other vehicles and pedestrian or bicycle traffic.

4.4.2 Major Streets Master Plan

The Major Street Master Plan defines the framework of major streets. It is intended that the City retain the existing compact form. In-fill development is encouraged in the Land Use Element as a significant means of accommodating new growth. Consequently, selected existing streets will continue to function as the major streets. Nonetheless, there are potential growth areas within and adjacent to the existing City boundary that will require major new roads where development is permitted.

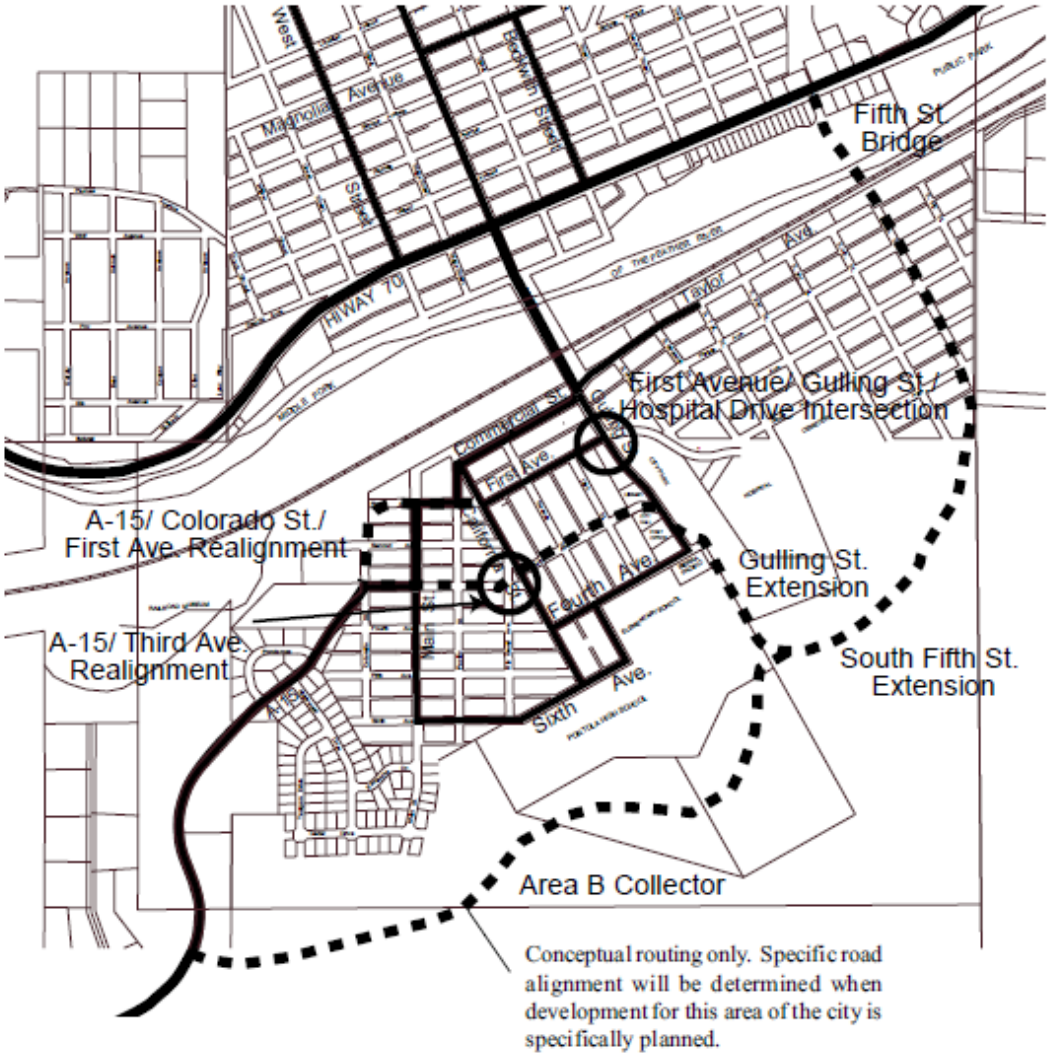
New Arterial Streets and Collector Streets

Development in the areas north and south of the existing urban area, as well as in-fill development, will generate the need for additional routes parallel and connecting to Highway 70. The conceptual routes are described here and are shown on Figure 4-7. The intent is to provide collector streets through the potential major new development areas identified in the General Plan Diagram.

County Road A-15/Colorado Street/First Avenue Realignment will route traffic from County Road A-15 to Gulling Street. A-15 will be realigned north along a newly constructed Colorado Street and will curve onto a new alignment of First Avenue through the vacant parcel. The alignment will provide a new route to the Railroad Museum and access to parking along the north side of First Avenue to serve the commercial uses on Commercial Street. Commercial Street will continue to be a public street for traffic, but will be designed to accommodate wider pedestrian sidewalks and slower, lower volume vehicle traffic. This is consistent with the intent to make Commercial Street a pedestrian oriented service and shopping street, as described in the Land Use Element Section 2.6.1 and the Community Design Element Section 3.1.

First Avenue/Gulling Street/Hospital Drive Intersection will be reconstructed to raise the intersection and lower the grade along First Avenue. The existing right-of-way for Portola Avenue between south Pine Street and Gulling Street will be declared surplus and made available to the adjacent property owners. This reconstruction will facilitate the use of First Avenue as the primary route to Road A-15.

FIGURE 4-7
NEW ROADS IN THE CORE AREA



County Road A-15/Third Avenue Realignment will also route traffic from County Road A-15 to Gulling Street. A traffic circle will be constructed in the existing triangular parcel bounded by Rio Grande Avenue, Third Avenue, and California Street. The traffic circle will enable traffic to move freely through the Third Avenue/California Street intersection which is currently off-set.

South Gulling Street will extend south into Area B and provide a connection to the proposed business park and residential area, and the new collector street connecting South Fifth Street to County Road A-15.

South Fifth Street will be extended south and west around the hospital to connect Taylor Street to the proposed Gulling Street extension. Ultimately, South Fifth Street may be extended across the river on a new bridge connecting to Sierra Street. This will provide a new entry to the south side of the City.

Area B Collector will be a new street that extends west from the Gulling Street extension around the south side of the high school and connects to County Road A-15. This will provide a connection from County Road A-15 to the Gulling Street extension and ultimately to the South Fifth Street extension.

4.4.3 Major Streets in Future Growth Areas

Annexation of new growth areas will require new routes to provide local circulation both parallel and connecting to

Highway 70. The primary movements will be north and west of Highway 70.

West Street/ Delleker Collector will connect from West Street in the vicinity of Carmichael School west to an extension of Delleker Drive north from Highway 70.

Delleker Drive will extend north to connect to the West Street/Delleker Drive Collector.

West Meadow Loop will extend west from Delleker Drive and connect to Highway 70 in the vicinity of Mabie.

Future development of the area to the north of the existing City boundary, notably the Teanna Ranch and Grizzly Creek Road area will require additional roads. Generally these roads will serve relatively low density development.

4.4.4 Traffic Signals

With the relatively low traffic volumes on most local streets throughout Portola traffic signals have not been needed. However, the volume of traffic on Highway 70 (Sierra Street) does require signalization at the Gulling Street intersection. Additional signalization may be required in the future as traffic volumes increase.

4.4.5 Truck Routes

Highway 70 will remain the primary route for commercial traffic through the City and is intended to accommodate adequate movement of goods by trucking. Truck traffic on all other collector streets will be limited to local deliveries.

Policies: Street System

C-P-1: Maintain traffic Level of Service LOS C on residential streets, arterial and collector streets and at all intersections.

C-P-2: Make efficient use of existing street facilities and complete the street systems in the underdeveloped portions of the City as they are developed.

C-P-3: When there is increased demand from new development, the street system will be expanded to serve new development areas.

C-P-4: New development will pay a fair share of the costs of street and other traffic and transportation improvements based on the traffic generated and impacts on service levels.

C-P-5: New streets will be designed and graded to have minimum impact on natural features.

C-P-6: The road system must provide for evacuation of residents, access, and tactical locations for fire fighters, and defensible space around structures. The residential streets in new development areas shall be designed to provide a clear evacuation route. The primary evacuation route shall be reasonably direct and streets shall flow toward safety in a logical fashion.

C-P-7: All roads must be designed to minimize hazards from snow and ice conditions and facilitate snow plowing.

C-P-8: Street improvements will be designed to minimize traffic patterns that will increase air pollution.

Implementing Policies: Street System

C-I-1: Conduct a traffic analysis on all development proposals for residential development in excess of 50 residential units and commercial development in excess of 10,000 square feet to evaluate the effect on LOS standards. This requirement may be waived by the City where a

recent traffic analysis considered the impact of the proposed project. Caltrans "Guide for the Preparation of Traffic Impact Studies" will be consulted when SR 70 is affected.

C-I-2: Perform periodic evaluation of the LOS on major streets to identify deterioration in LOS conditions.

C-I-3: Evaluate LOS conditions when prioritizing local street improvements for the City.

C-I-4: Improve local streets and intersections to maintain LOS standards.

C-I-5: Require new development to participate in the funding of collector and arterial street improvements identified in the Master Street Plan.

C-I-6: Adopt street standards that provide flexibility in design with regard to topography and sensitive environmental conditions, and land use intensity.

C-I-7: All new residential subdivisions with over ten (10) residential lots shall provide an emergency evacuation plan with the tentative subdivision map. The evacuation plan shall indicate a primary and secondary evacuation route for each residential lot.

C-I-8: Establish a street improvement priority program to implement street construction in the in-fill areas.

C-I-9: Require that the arterial and collector streets shown on Figure 4-3 are considered in the review of any development proposal adjacent to the proposed route.

4.5 PARKING

Parking is unusually challenging in Portola because the City streets were designed before automobiles were common. Typically the streets are wide enough to allow on-street parking, but there is little dedicated off-street parking in the commercial areas, and no parking on the residential lots in the older parts of the City.

The demand for parking generated by the existing businesses is periodically increased significantly by the patrons of special events. New business development and increases in tourism, including special events, is a fundamental purpose in this General Plan. The success of the economic development element will rely, in part, on the ability to accommodate the traffic and parking associated with new businesses and special events. Other modes of transportation, including local shuttles, bus service, and pedestrian and bike systems can be expected to reduce the traffic and parking load associated with special events, but the majority of visitors will arrive in automobiles.

Policies: Parking

C-P-13: Ensure that there is adequate parking for normal commercial activities.

C-P-14: Ensure that there is adequate parking for special events.

C-P-15: Coordinate the parking area locations with the roadway, transit, and pedestrian and bikeway systems.

C-P-16: Expand public parking in the Sierra Street and Commercial Street area to alleviate existing parking shortages.

C-P-18: The City will implement a parking plan in the Old Town area to provide parking lots improved and maintained by a parking district to the benefit of the participating businesses.

Implementing Policies: Parking

C-I-13: Work with the local merchants to improve on-street parking conditions.

C-I-14: Work with local merchants and property owners to establish off-street parking.

C-I-15: Support formation of parking districts to support local merchants.

C-I-16: Encourage development of shared parking among local businesses. Allow common access driveways to shared off-street parking.

C-I-17: Locate parking within acceptable walking distance of the facilities they are expected to serve. Walking distances should not exceed 200 feet for short-term parking and 600 feet for long-term parking.

C-I-18: Locate parking facilities for special events along routes that facilitate walking to the event, and in locations that can be logically served by a shuttle system.

C-I-19: Locate parking facilities for special events near transportation nodes.

C-I-20: Locate long term parking facilities where they can be observed by passers-by.

C-I-21: Locate parking for recreation activities such as hiking and mountain biking riding near the trailhead.

4.6 BIKEWAY AND PEDESTRIAN SYSTEM

Portola is a compact community with most public destinations within reasonable walking distance of the majority of residents. The town is approximately one mile in length along Sierra Street and neighborhoods extend approximately one mile north and south from Sierra Street. City Hall, the library, post office, major parks, and sheriff substation are clustered together just a few blocks from the old town commercial area. The high school and middle school are located at the edge of the south neighborhood, and the elementary school and a neighborhood park are located at the edge of the north neighborhood.

The existing City is very walkable in terms of the location of primary land uses. The existing street pattern throughout the older parts of the City typically consists of very short blocks 350 feet long. This facilitates walking, but creates multiple intersections and an excessive amount of paving. The major limitation to ease of walking is the lack of sidewalks. Sidewalks occur sporadically in the residential neighborhoods outside the commercial areas.

The relatively direct routes afforded by the existing street pattern facilitate bicycle travel in Portola. However, cycling is constrained by the lack of designated bike routes and the condition of local streets. Steep streets and, in some cases, unpaved lanes and/or shoulders make it difficult to bicycle throughout the City. Cycling is particularly difficult in winter when ice on the steeper streets and snow piled along the shoulders adds to the hazard.

Sierra Street is a barrier to both pedestrians and cyclists due to the width of the street, the relatively high speed and volume of traffic, and the lack of designated and signalized crossings. The installation of a traffic signal at the intersection of Sierra Street and Gulling Street in 2002 will improve this condition, but additional designated crossings are needed.

Improving the facilities for bicycling is important for the convenience and enjoyment of Portola residents, and for expanding economic development through tourism. The area around Portola offers significant opportunities for touring and mountain bike riding. Portola is the crossroads of regional bike routes designated in the Regional Transportation Plan. Primary routes extend from the City up Rocky Point Road and Grizzly Creek Road to Lake Davis and return by Lake Davis Road. A second route extends out County Road A-15 to Highway 89, then returns via Graeagle and Blairsden along Highway 70. Several additional routes extend from these primary routes to provide touring cyclists with a range of trips that can be based in Portola.

Portola can become a hub for such activity if it provides the base facilities to serve these potential patrons of local businesses and events. The primary facilities required are staging areas and good routes to the trails and touring routes outside the City.

The existing bikeway and pedestrian network should be enhanced to further encourage bicycling and walking in the City. This is accomplished in part by encouraging the continuity of the existing compact land use pattern in the Land Use Element, and by creation of new bike routes and sidewalks where ever new streets are installed or existing streets are upgraded.

In addition to the existing pedestrian network the General Plan establishes a new pedestrian system designed to link major activity and recreation centers. These centers are part of the land use and recreation facilities intended to enhance the quality of life for community residents, and to attract tourism as part of the economic development strategy described in the Economic Development Element.

The backbone of this pedestrian system is the walkway and bikeway that links the Federal Park land with Railroad Museum. The trail will be part of the planned "Riverwalk Park" located along the north side of the river connecting the Federal Park to the Gulling Street Bridge. From Gulling Street, the walk continues up Commercial Street then to the Railroad Museum. The path will be marked with 1/10-mile markers and signs identifying it as the Riverwalk trail.

One of the primary constraints to bicycle travel is the narrow pavement section on the Gulling Street Bridge. The pavement is only 28 feet wide and would permit a four-foot wide bike lane on both sides only if the travel lanes are reduced to 10 feet. A dedicated bike route will require additional width on the bridge.

Similarly, the width of Commercial Street limits the potential for a bike lane and on street parking on both sides of the street.

Policies: Bikeway and Pedestrian System

C-P-20: Develop a system of sidewalks and bikeways that promote safe walking and bicycle riding for both residents and tourists.

C-P-21: Establish a primary pedestrian system linking the Federal Park land with the Railroad Museum via Commercial Street.

C-P-23: Provide spur or branch walkways connecting to the residential neighborhoods and primary public destinations.

C-P-24: Route sidewalks so that they connect to major public parking areas, transit stops, and intersections with the bikeway system.

C-P-25: Provide pedestrian links to hiking trails in the area around the City.

C-P-26: Provide adequate bicycle parking facilities at commercial, business/professional, and light industrial uses.

C-P-27: Improve safety conditions, efficiency, and comfort for bicyclists, transit riders, and pedestrians, while ensuring compliance with Americans with Disabilities Act (ADA) requirements.

- Use steps to avoid steeper grades on sidewalks.
- Give the walks a minimum cross pitch of approximately 2 percent.
- Locate important walkways and intersections where they will not be in prolonged shade.

Implementation Policies: Bikeway and Pedestrian System

C-I-22: Install prominent signs at the east and west entries to the City on Sierra Street warning motorists of the presence of pedestrians and bicyclists.

C-I-23: Develop a design for improvement and re-striping of Gulling Street Bridge to accommodate, at minimum, a Class II bike path in both directions.

C-I-24: Seek funding to expand the width of the Gulling Street Bridge to accommodate a bike path in each direction and provide access to the open space area along the south side of the river.

C-I-25: Seek funding to provide a pedestrian/bike bridge across the river connecting a bike and pedestrian path on the south side of the river to the Riverwalk Park on the north side.

C-I-26: Any future crossing of the river and railroad shall include bike lanes in each direction.

C-I-27: Increase bicycle safety by:

- Providing bicycle paths and lanes that promote bicycle travel.
- Sweeping and repairing bicycle lanes and paths on a continuing, regular basis.
- Ensuring that bikeways are delineated and signed in accordance with Caltrans standards and lighting is provided, where needed.
- Ensuring that all new and improved streets have bicycle-safe drainage grates and are free of hazards such as uneven pavement and gravel.

C-I-28: Add bike lanes whenever possible in conjunction with road reconstruction or re-striping projects and subdivision development and related off-site improvements.

C-I-29: Acquire the right-of-way for the bike and pedestrian path along the north side of the river linking the Gulling Street Bridge to the Federal Park (the Riverwalk Bike Trail).

C-I-30: Seek funding from the US Forest Service to connect the Riverwalk Bike Trail through the Federal Park to Rocky Point Road.

C-I-31: Make bikeway improvements an on-going funding objective by:

- Continuing to consider financing bikeway design and construction as part of the City's annual construction and improvement budget.
- Incorporating bikeway improvements as part of a five year Capital Improvements Plan.
- Pursuing grant funding and other sources for new bikeways.
- Pursuing funding for ancillary facilities such as river access for handicapped persons, secured bicycle parking, parking areas at mountain bike and touring bike trail heads, drinking fountains and restrooms.

C-I-32: Require provision of secure covered bicycle parking at all parks and public gathering places, multifamily residential, commercial, industrial and office/institutional uses.

C-I-33: Encourage Plumas County Transit to provide bike racks on the buses serving the Portola community. Provide bike racks on a local shuttle service or jitneys used for special events.

C-I-34: Encourage resident and tourist use of the bike trail system by preparing a map of the bikeways and trail heads within and near the City.

C-I-35: Ensure that City standards for pedestrian facility design conform to the Americans with Disabilities Act (ADA) requirements. Implement a program to install handicapped ramps at

all intersections as street improvements are being installed. Intersections in the core area along Sierra Street, Gulling Street, and Commercial Street shall have priority for funding the handicap accessibility improvements.

C-I-36: Provide for pedestrian access in the Old Town area, along Sierra Street and in other high-use areas by:

- Constructing wide sidewalks where feasible to accommodate increased pedestrian use.
- Providing pedestrian bulbs extending into intersections and at crosswalks to reduce walking distances and provide a safe peninsula for pedestrians.

4.7 TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management (TSM) refers to measures designed to reduce the number and length of automobile trips, particularly during peak commute hours. TSM measures typically include ride sharing, van pools, and a variety of management techniques applied by larger employers in metropolitan areas. Typical TSM measures are most effective where they can be implemented by large employers.

In rural communities where there is a significant number of workers commuting out to a larger metropolitan area the TSM measures focus on ride sharing and van pooling to reduce the number of single occupant vehicle trips. Reduced vehicle travel can help reduce peak hour traffic congestion, reduce future air pollution concentrations, and reduce consumption of energy for transportation uses. Moreover, it can help reduce individual transportation costs for Portola residents, yielding potentially significant savings as the cost of fuel rises.

TSM measures can also be effective in reducing the number of vehicle trips resulting from special events. TSM measures can include special bus service or shuttles to bring visitors in from distant locations.

Policies: Transportation System Management

C-P-28: Establish a program to provide ride sharing and van pool opportunities for Portola residents.

C-P-29: Use alternative modes of transportation to bring visitors to special events.

Implementing Policies: Transportation System Management

C-I-37: The City shall seek to establish a ride share information base and coordinate the matching of rideshare commuters with a local service agency.

C-I-38: The City shall work with the County and Caltrans to locate a park and ride lot at the east edge of the City to facilitate ride sharing.

C-I-39: The City shall seek to establish a van pool program for commuters with Caltrans or a local service agency.

C-I-40: The City shall make information available at City Hall and the library regarding public transit, ridesharing, van pools, and other transportation alternatives to single occupant vehicles.

4.8 PUBLIC TRANSPORTATION

General public transportation within Plumas County is provided by Plumas County Transit. They operate three buses on fixed routes, with dial-a-ride service available. Plumas County Transit is funded primarily by Local Transportation Funds and State Transit Assistance Funds, allocated on an annual basis through the Plumas County Transportation Commission. One bus begins in Portola and provides three round trips throughout Portola and to Graeagle, Blairsden, Cromberg, and Quincy. Plumas County Nutrition Center also provides transportation to Senior Citizens for a variety of

purposes including, but not limited to: meal delivery, medical appointments, and shopping.

In addition to the County transit service, Greyhound bus service is provided along Highway 70 on a daily basis.

The ridership on public transit in rural areas is typically quite low due to the relatively small population base and low density of residential development. However, there are factors that indicate the potential need for expanded transit service in Portola. The planned population growth and the residential densities shown in the Land Use Element in the core of the City will contribute to the demand for public transit service. The City includes uses that are typically attractions for bus ridership, such as the hospital, library, post office, shopping, and services along Sierra Street and Commercial Street. The schools are also a potential service area.

A small, locally operated shuttle or jitney would provide the services within town and connect to the Plumas County Transit system. A local shuttle or jitney service would provide an alternative transportation mode within the City for visitors to special events such as Railroad Days, craft fairs, cultural and sporting events.

Policies: Public Transit

C-P-30: Cooperate with Plumas County Transit to enhance the public transit ridership in Portola.

C-P-31: Seek opportunities to provide an alternative public transit system in Portola.

C-P-32: Establish a goal for public transit in Portola that will be associated with the recreation and tourism opportunities in the community.

C-P-33: Seek to establish a regional public transportation link.

C-P-34: Encourage local entrepreneurial efforts to provide public transportation services.

C-P-35: Ensure that public transit services are linked to public parking areas, bikeways, and major pedestrian routes.

Implementation Policies: Public Transit

C-I-41: Work with Plumas County Transit to provide bus stop shelters at all locations within the City. The bus stop shall include a sign that indicates the route and schedule of the bus. The bus stop shelter shall include a sign that clearly identifies it and provides the name of the stop.

C-I-42: Provide information about the transit service at the City Hall and library.

C-I-43: Establish guidelines and a permitting process for private entrepreneurs to operate jitney or taxi services in the City.

C-I-44: Establish a plan of primary locations where the transit systems will connect to the major bikeways and pedestrian ways and the primary public parking areas.

C-I-45: Work with the regional commercial carriers to establish bus service to the City.

C-I-46: Work with the regional commercial carriers to establish a station where patrons can be protected from weather and package shipping and receiving service is available.

C-I-47: Designate a location for the regional bus station where it serve as a “multi-modal” station with connections to the regional bus, the Plumas County Transit bus, a public parking lot, local shuttle system and primary bikeway and pedestrian system will all interconnect.

C-I-48: Establish guidelines for development of a Special Event Shuttle service and work with private businesses and service agencies to initiate a shuttle service during special events.

C-I-49: Monitor the use of special event shuttles and consider expanding to seasonal or year-round shuttle if the demand warrants it.

C-I-50: Work with other communities, recreation, and lodging businesses to expand the local seasonal shuttle or special event shuttle to the Feather River Inn, Blairsden, Johnsville, Graeagle, the Grizzly Creek camp and other activity destinations in the east Plumas County area.

C-I-51: Work with Plumas County to ensure that paratransit and other special needs are met in the City of Portola.

4.9 RAIL

The Union Pacific Railroad is a dominant element in the physical form of the City, but plays only a minimal role in local transportation. The rail line is totally dedicated to freight and the local service is limited to shipping and receiving. Nonetheless, the rail through the Feather River Canyon is a major trans-Sierra route and recognized as one of the more scenic. Although passenger service was discontinued in the 1970's the route is still used occasionally for special passenger trains. Passenger rail service is growing after a long period of decline and new passenger service is slowly being re-established. The California State Rail Plan identifies Portola as a major railyard and connection to Nevada and states to the east for rail freight movement.

The decision to institute passenger service occurs far beyond the City's influence. Yet, the City can encourage the restoration of passenger service, even on a limited, periodic basis. The rail museum is an obvious draw that will bring rail enthusiasts to the City. The City can help support the interest in rail travel by sponsoring events that draw people who enjoy riding on the railroad, and by ensuring that rail travel is a convenient and comfortable experience when stopping in Portola.

Guiding Policies: Rail

C-P-36: Encourage Union Pacific Railroad to provide passenger service on the Feather River route at every opportunity with the ultimate goal of re-establishing regularly scheduled service.

C-P-37: Encourage Union Pacific Railroad to sustain the rail shipping service.

Implementing Policies: Rail

C-I-52: Cooperate with the Portola Railroad Museum in their efforts to provide visitor facilities in Portola.

C-I-53: Zone land use near the visitor facilities to accommodate lodging, restaurants, retail shops, and other services in support of visitors to the rail museum.

C-I-54: Route the local shuttle system or other transportation networks under the City's control to provide convenient access for visitors to the rail museum, and for visitors arriving by rail.

C-I-55: Include directional signs to the rail museum in appropriate locations on any master directional signage program established by the City.

C-I-56: Establish a working relationship between the City administration and the local management of the Union Pacific Railroad by requesting regular meetings to discuss items of common interest regarding expansion of rail service and economic development of the region.

4.10 AIRPORT

The Beckwourth (Nervino) Airport is a county owned and operated facility located approximately five miles east of

Portola along Highway 70. The airport provides services for general aviation on a 4,600 foot long runway capable of accommodating large general aviation aircraft.

Although not within the City, the airport has the potential to serve economic development and tourism to the benefit of businesses in Portola.

Policies: Airport

C-P-38: Encourage expansion of flight services and accommodations at Beckwourth Airport.

Implementation: Airport

C-I-57: Cooperate with Plumas County in their efforts to expand services and aircraft accommodations at Beckwourth Airport.

C-I-58: Provide supporting letters and other documents as requested by the County in support of airport expansion.

C-I-59: Provide information, such as brochures and signs, and ensure that current telephone directory information regarding Portola businesses is available at the airport.

C-I-60: Encourage development of courtesy van service and other means of ground transportation for people arriving by general aviation aircraft.

5. ECONOMIC DEVELOPMENT ELEMENT

Portola, as many other small, rural communities, has experienced economic stagnation because of the long-term decline of basic industries such as mining and forestry. Historically, the local economic base relied on extracting and consuming natural resources. Basic industries that brought new revenue to the community formerly meant exporting the natural resource. Relatively low wages, high unemployment, low property values, and little prospect for return of the historic job base are common economic factors.

However, new circumstances promise new economic growth if communities are poised to take advantage of them. These circumstances include:

- an increase in healthy active people seeking retirement in attractive communities with recreation opportunities,
- new telecommunications technologies that enable businesses to locate virtually any where, and
- an increase in tourism and retirement life styles brought about in part by the overall health and wealth of people throughout the nation.

Traditional location criteria such as availability of shipping or the aggregation of certain services or business connections have become less important for many types of businesses. With the advent of various telecommunications technologies, and growth in industries based on information services and manufacture of small, highly transportable goods, business decision-makers can be much more flexible in selecting a new business location.

The new criterion for business growth is broader than the traditional concerns. In addition to the need for access to markets and transportation, the new criterion includes the availability of business services, telecommunications technology, and the quality of the local environment. For some employers the quality of life opportunities are now as important as proximity to markets and transportation.

Economic development opportunities in Portola will occur, in part, because of the high level of natural amenity and recreation resources. Protection of the visual and natural amenity in this area is essential to the success of economic development. Good housing, good schools and parks, a vibrant social and cultural life, recreation opportunities, good transportation systems, and above all, an attractive natural setting are essential to the future potential growth in jobs and economic opportunities.

The strategy underlying this Element is to enhance and broaden tourism as a basic economic engine, and to establish a new non-tourism employment base in the City. This is accomplished by establishing land use, community design, circulation, public facilities, and natural resource conservation goals, policies and standards in the General Plan and Portola Municipal Code that will accommodate new growth while protecting the natural environment.

Authority

The Economic Development Element is an optional element of the General Plan under Section 65303 of the Government Code.

> *"The general plan may include any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city."*

Relationship to Other Elements of the General Plan

Although this is an optional element, it is given considerable weight in this General Plan. The success of economic development is interwoven with virtually all aspects of the community. Thus, the Economic Development Element incorporates policies and concepts that are linked with the Land Use Element, Housing Element, Public Facilities Element, Open Space and Conservation Element, and the Circulation Element.

Regional Cooperation

Portola is the service center of the east Plumas region, and the economic future of the City significantly depends on maintaining and expanding that role. Consequently, the economic success of Portola is closely linked with the success of the enterprises in the region. Provided that economic growth in the surrounding area is of good quality and does not diminish the environmental qualities that attract visitors and new residents, Portola will benefit from the success of its economic neighbors and will cooperate in efforts to ensure their success.

5.1 ECONOMIC DEVELOPMENT GOALS

Goal ED-1. Expand stable year-round employment.

Goal ED-2. Attract new industries that are compatible with the natural amenities and character of the City.

Goal ED-3. Expand and diversify tourism both within the City and in the east Plumas County region.

Goal ED-4. Expand education and training opportunities for City residents.

Policies: Business Innovation and Development

ED-P-1. Promote new businesses that are forward looking and apply innovative technology and practices, and that are compatible with character of the community.

ED-P-2. Establish appropriate land use zones that will support new business.

ED-P-3. Facilitate development of commercial uses and business parks within the City.

ED-P-4. Maintain an adequate supply of appropriately located and zoned land to provide opportunities for industrial/ business-professional and commercial development.

Implementation: Business Innovation and Development

ED-I-1. Establish a profile of businesses that would meet the objectives of this policy.

ED-I-2. Develop an incentive program for industries that meet the profile. Incentives may include cooperation in expediting land use entitlements, providing phased payment of fees, City of Portola contribution to land acquisition costs, and other financial and procedural inducements within the means of the City of Portola.

ED-I-3. Work with property owners in the undeveloped and unserved areas to share the cost of extending sewer, streets, water distribution, and utilities among benefiting land owners.

ED-I-4. Monitor the consumption of undeveloped land designated for residential, commercial and industrial/ business-professional uses and supplement the land use by periodically amending the General Plan to ensure there is an adequate supply of suitable land for at least five years.

Policies: Emphasis on Protecting Natural Amenities

ED-P-5. Emphasize the quality of the natural environment as an essential feature of the City's economic development efforts.

Implementation: Emphasis on Protecting Natural Amenities

ED-I-4. Maintain and enhance the quality of the natural environment through the various policies and design standards included in the Land Use Element, Community Design Element, and the Conservation Element.

ED-I-5. Identify the quality of the local environment as an essential concern of the City in the review of all applications for development.

Policies: Local Self-Reliance

ED-P-6. Emphasize local self-reliance by using local resources, including the local work force, capital resources, transportation resources, as well as natural resources in economic development efforts.

ED-P-7. Encourage expansion of local businesses.

ED-P-8. Strengthen the City's tax base by attracting small, environmentally sensitive businesses with tax generation potential.

ED-P-9. Exercise initiative in forming public/private partnerships to create jobs and new economic opportunities.

ED-P-10. Enhance opportunities for economic development between the City of Portola and the Union Pacific Railroad.

Implementation: Local Self-Reliance

ED-I-10. Prepare an inventory of the local resources to assist in marketing the area to prospective new employers.

ED-I-11. Encourage new businesses to employ local residents.

ED-I-12. Prepare a target industries study that identifies the specific industries that may be attracted to Portola and the type of program required to attract them.

ED-I-13. Establish guidelines, which link business activity to the City's business generated revenues and determine the level of economic development activities that are appropriate to attract future business activity.

ED-I-14. Establish guidelines for linking business growth to the level of revenues available to the City to provide public services.

ED-I-15. Prepare an annual report as a supplement to the Annual Budget Report that describes recent and projected job and housing growth, and the effects on public services.

ED-I-16. Function as the master developer and organize land owners in under developed and unserved areas of the City to prepare and implement plans for extending sewer, water, drainage, utilities and streets in order to facilitate development of individual properties.

ED-I-17. Implement the Industrial Development Authority (Municipal Code Title 4) to aggregate lands for economic development and to acquire funding for improvements necessary to prepare land for industrial/business-professional and commercial development.

ED-I-18. Seek opportunities for public/private partnerships in economic development.

ED-I-19. Identify and pursue state, federal, and other grants targeting infrastructure and land improvements, job training, new technology and other programs directed toward economic development.

ED-I-20. Seek opportunities to provide enterprise services, such as the management of public recreation facilities and concessions at Lake Davis that will generate additional employment

opportunities for City residents.

ED-I-21. Invite the local managers of the Union Pacific Railroad to meet with the City Manager and City Council on a biannual basis to discuss opportunities for economic development that relate to use of the railroad services.

Policies: Affordable Housing, Education, and Training

ED-P-11. Enhance the aspects of the community that will help economic development efforts to draw employers and visitors to the area. This includes quality housing and neighborhoods, quality education, recreation and cultural resources.

ED-P-12. Promote education and training efforts to employ residents in new industrial opportunities and to enhance the labor force as a draw for new businesses.

Implementation: Affordable Housing, Education, and Training

ED-I-22. Establish a set of standards and "quality of life" criteria for attracting new businesses.

ED-I-23. Establish an annual review of the "quality of life" criteria by requesting comment from the local business community regarding improvements that would attract and hold businesses.

ED-I-24. Establish a partnership with the Plumas Unified School District, and particularly the administration of schools in Portola. The purpose is to identify methods of sharing resources to enhance the education value of the local schools.

ED-I-25. Identify work-study opportunities that can use students in productive work to enhance the attractiveness of the community. Examples of such work may include conservation projects, pedestrian and recreation improvements.

ED-I-26. Provide the schools with information on short and long-range economic development plans. These plans may assist in developing specific programs or curricula designed to prepare students for future employment opportunities.

ED-I-27. Work with the schools to establish practical job training and vocational education programs geared to industries and occupational needs anticipated in the area.

ED-I-28. In the General Plan Land Use Map identify land areas to accommodate of a variety of housing types and prices to accommodate a range of employee households.

ED-I-29. Monitor the availability of housing in the City relative to the growth in planned employment within a ten mile radius of Portola and, at a minimum of three year intervals, evaluate the need for additional land area for housing to accommodate new housing.

Policies: Infrastructure for Economic Development

ED-P-13. Ensure that the highest available levels of communications, transportation, and public infrastructure are available in Portola.

ED-P-14. Ensure that development pays a fair share of community costs associated with the development, but assist new businesses to find funding for new investment in the community.

Implementation: Infrastructure for Economic Development

ED-I-30. Maintain a Capital Improvements Program that identifies the one, five, and ten year plan for

upgrading existing and constructing new infrastructure to serve industrial/business-professional, commercial and residential areas.

ED-I-31. Encourage implementation of agreements among electric service providers in the region that ensure adequate and reliable electric power sources and distribution systems in Portola.

ED-I-32. Seek to establish fiber optic communications service within Portola and periodically meet with the service provider to review the service. As the technology evolves to a new type of service, the City of Portola will seek to ensure that the "state-of-the art" in communications is available.

ED-I-33. Encourage employers to participate in local transportation management efforts, including ride sharing, pedestrian and bicycle networks, and local transit.

ED-I-34. Establish a bi-annual review with the local business community to determine the adequacy of the local circulation system and identify specific improvements to be included in the Capital Improvement Program. Such improvements may include, but are not limited to:

a. Shipping/delivery access
b. Parking
c. Good quality roads
d. Access to airport and rail

ED-I-35. Establish funding for new road improvements and on-going road maintenance related to the development and ultimate use of the land.

ED-I-36. Encourage Plumas County to maintain and improve Nervino Airport in support of business and tourism.

ED-I-37. Encourage local businesses to support the use of Nervino Airport by including it in advertising, and to provide services, such as airport pickup, for general aviation travelers.

ED-I-38. Review the City of Portola development fee schedule on an annual basis to ensure that the fees charged reasonable, but sufficient to ensure that all new service and public facilities costs resulting from new development are paid by the development.

ED-I-39. Work with Plumas Corporation to obtain information on loans and other economic aid available to businesses. The information will be maintained at City Hall and copies made available upon request.

ED-I-40. Continue to encourage the use Community Development Block Grant and other economic development funds available to local businesses.

Policies: Community Image and Quality of Life

ED-P-15. Maintain and enhance an attractive community environment that will draw visitors, residents, and new employers.

ED-P-16. Encourage development of a local art community as a component of local economic development.

Implementation: Community Image and Quality of Life

ED-I-41. Vigorously enforce nuisance abatement procedures to ensure that dilapidated properties will not become visual blight.

ED-I-42. Establish guidelines for providing assistance in clearing dilapidated properties to low income households and others reasonably unable to comply with City of Portola nuisance abatement procedures.

ED-I-43. Implement the design standards and guidelines established in the Community Design Element on all public lands, facilities, and rights-of-way.

ED-I-44. Promote the work of local artisans in marketing efforts.

ED-I-45. Amend the municipal code commercial land use zones to accommodate retail sales and work-live studio space in a single location.

ED-I-46. Provide public space for events that display the work of local artisans. An example is the planned park along the Feather River, but this may also occur along Sierra Street, along Commercial Street and in other parks or public areas near the Railroad Museum.

ED-I-47. Encourage the formation of a local arts council.

Policies: Regional Cooperation

ED-P-17. Encourage and participate in regional cooperative efforts for economic development by building long-term partnerships between the City of Portola and businesses, business organizations, and the educational, arts and environmental groups.

ED-P-18. The City of Portola will cooperate with other agencies, interest groups, businesses, and private citizens in promoting tourism and leisure industry activities in the East Plumas County region.

Implementation: Regional Cooperation

ED-I-48. Participate in regional joint marketing programs.

ED-I-49. Establish a web page to provide information about the City of Portola and local businesses on the Internet.

ED-I-50. Establish a semi-annual forum sponsored by the City to encourage local businesses to share business development concepts and support activities that attract patrons from outside the community.

Policies: Timely Development Review Procedures

ED-P-19. Establish a standard procedure for responding to inquiries about locating businesses in Portola. Such a procedure should provide a level of certainty and immediacy for applicants to assure them of the City's interest in economic development.

Implementation: Timely Development Review Procedures

ED-I-51. Appoint a City economic development coordinator to work with the Plumas Corporation, commercial brokers, and project applicants.

ED-I-52. Establish clear zoning and development standards that will expedite the City's project review process.

ED-I-53. Amend the Municipal Code land use and zoning to establish an expedited procedure for certain types of projects that meet pre-determined standards. Development projects that fulfill the pre-determined standards will be subject to a simplified review process.

ED-I-54. Publish a simple, clear set of guidelines and procedures for development project applicants. The publication should outline the steps involved in project entitlement and provide the name and telephone number of City and other agency staff people involved in the project review process.

Policies: Expand Tourism and Visitor Opportunities

ED-P-20. Encourage development of new tourism activity beyond the traditional summer season.

ED-P-21. Encourage the development of conference and meeting facilities.

ED-P-22. Establish multiple locations for special events throughout the core of the City. The intent is to accommodate multiple events concurrently, or to accommodate a single large event spread over several sites.

ED-P-23. Encourage development of lodging facilities.

ED-P-24. Encourage development of the railroad museum as a major visitor attraction for Portola.

Implementation: Expand Tourism and Visitor Opportunities

ED-I-55. Identify and designate sites that may be used in a coordinated program for activities.

ED-I-56. Acquire additional facilities for events, such as the vacant block adjacent to the Railroad Museum and the old hospital site.

ED-I-57. Designate sites appropriate for lodging facilities.

ED-I-58. Establish guidelines for project review and approval that will enable applicants for lodging facilities to expedite the entitlement process.

ED-I-59. Work with local businesses and land owners to identify suitable locations for conference and meeting facilities to host seminars, business meetings, small conferences, and social events.

ED-I-60. Establish guidelines for project review and approval that will enable applicants for conference and meeting facilities to expedite the process.

ED-I-61. Establish a cooperative working agreement with the Railroad Museum to promote visits to the museum and related visitor tourist activities.

6. PUBLIC SERVICES AND FACILITIES ELEMENT

Public facilities and services is the framework that supports and sustains the community. They are essential to maintaining the current quality of life and accommodating economic growth and development in the community. The availability and capacity of public infrastructure determines the ability to use land.

The Public Services and Facilities Element is focused on ensuring that the community infrastructure is in place to accommodate the growth and development identified in other elements of this General Plan. This element addresses both hard infrastructure (such as sewer and water) and the public services (such as police and fire). The City of Portola provides the basic infrastructure and some of the public services required by the community. A variety of public agencies and private franchises provide other services. All facilities and services are included to ensure that the resources required to support the community is available when needed.

The infrastructure facilities and services addressed in this element are:

- ❖ Water
- ❖ Sewer
- ❖ Major Drainage
- ❖ Communications
- ❖ Electricity
- ❖ Solid Waste
- ❖ Schools
- ❖ Libraries
- ❖ Recreation and Parks
- ❖ Police
- ❖ Fire Protection
- ❖ Community Services and General Government

Authority

The Public Facilities and Service Element is an optional element of the General Plan under Section 65303 of the Government Code.

> *The general plan may include any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city.*

Relationship to Other General Plan Elements

The location and capacity of basic infrastructure is closely related to the Land Use Element, Housing Element, Circulation Element, and Economic Development Element. The goals and policies of these other elements cannot be fully achieved where the basic public infrastructure is lacking.

Relationship to the Region

Most of the facilities and services described in this element are primarily for the benefit of the citizens of Portola. However, certain services clearly are of regional significance and benefit. The City shares these services outside the city boundary. Fire protection, for example, is extended beyond the city through mutual aid agreements.

6.1 PUBLIC SERVICES AND FACILITIES GOALS

The Public Facilities and Services Element addresses a broad range of activities by the City and the other service agencies in the community. Each of these services and activities may have specific goals that relate only to the character of that service. Underlying all of these specific goals are guiding principles that relate to all of the services. These principles establish the fundamental direction for expanding and refining the public services in the community.

Goal PF-1. The City will be innovative in new techniques and technologies to provide the best available "state-of-the-art" level of public services in a cost effective manner.

Goal PF-2. Public infrastructure and services will be affordable to the residents and business interests in the City.

Goal PF-3. Facilities improvements and services required to serve development will not place an economic burden on existing residents of the City. Development will pay a fair share of all costs of required public infrastructure and services.

Goal PF-4. Public improvements and facilities will be designed to enhance, rather than degrade, the natural environment in the City and surrounding area.

Goal PF-5. The City's public services and facilities will support economic development and residential growth in the city.

Goal PF-6. Public facilities and services agencies will cooperate on a regional basis.

Goal PF-7. Conduits to provide connection between public facilities on both sides of the river shall be included on any new bridge structure.

6.2 PROJECTED GROWTH RELATIVE TO PUBLIC SERVICES AND FACILITIES

Population growth and economic development affects all public services and facilities. The land use projections and the associated population growth described in the Land Use Element is summarized here to define the range of effects of development.

The population in Portola grew from 1910 to 1950, but declined from 1950 through 1970. The population grew slowly from 1970 through the early 1990's, but did not recover to the 1950 level. Population growth through the 1990's has been modest. Despite the relatively slow growth in the last few decades, Portola must prepare for potentially much higher growth in the next two decades. New population growth is likely to come from the fringe effect of overall growth in California, an increase in retirees, and job growth in service and tourism.

Individual communities will grow faster or slower than the overall state projection. Moreover, in a small community like Portola the annual percent of growth is not as significant as the actual number of new residents. Because the community is relatively small, population projections based on an annual average percentage increase are not meaningful. With a population base just above 2,000 residents, a relatively small increase in absolute population could translate to a high growth rate, yet there would be little noticeable effect on the community from year to year.

Nonetheless, the cumulative effect over time will be noticeable, and potentially significant. At a compound annual growth rate of 5 percent, the population in the city will reach a total of 5,678 persons in twenty years, a net increase of 3,538 persons.

In-fill Areas

Older areas of the city (outlined in Figure 6-1) were never fully developed and lack basic sewer, water, drainage, and streets. Full development of the city will require extending the basic infrastructure to these "in-fill" areas. The in-fill areas provide efficient growth areas within the city boundary. New development would require relatively short extensions of the existing infrastructure system and would provide improved circulation, for pedestrians and vehicles,

within the existing core area.

Policies: Core Area In-fill Development

PF-P-1. Facilitate development of the in-fill areas by extending infrastructure.

PF-P-2. Encourage comprehensive development rather than incremental, single project development.

PF-P-3. Encourage compact, mixed use design in the in-fill areas that respond to the topographic and other natural constraints.

PF-P-4. Make use of the public right-of-way as a tool for facilitating good quality design and development.

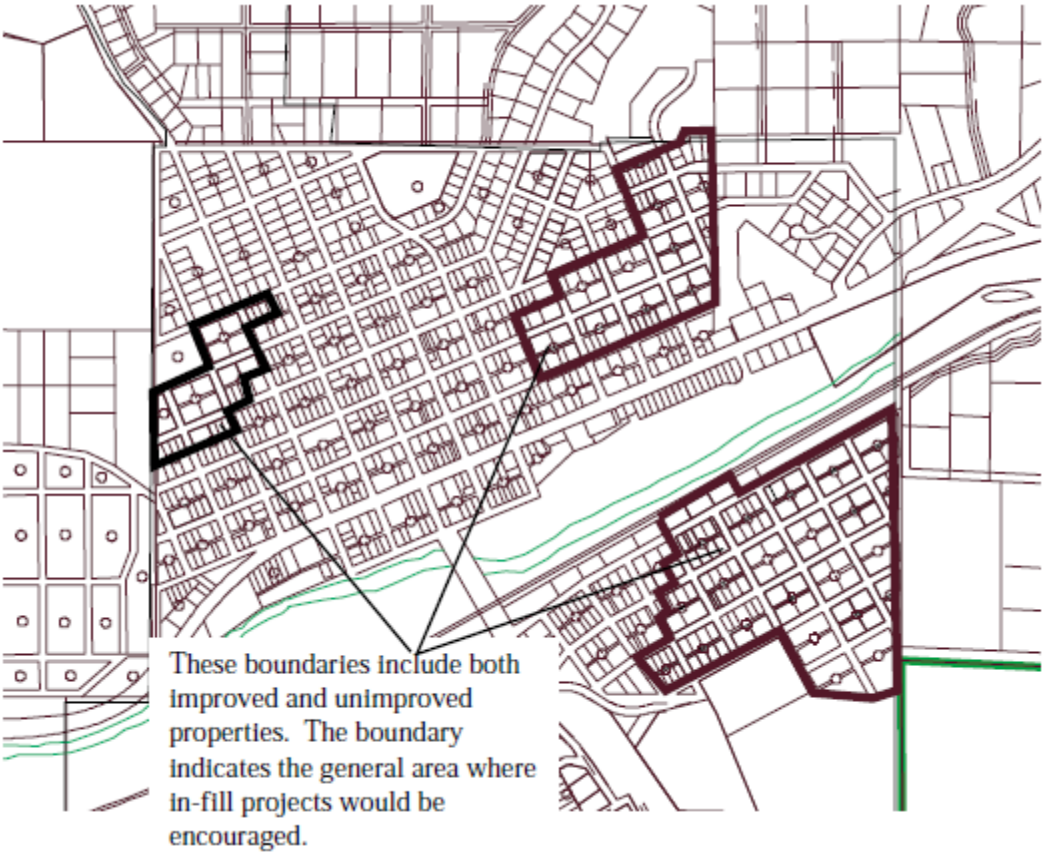
Implementation: Core Area In-fill Development

PF-I-1. The City will organize the landowners in the in-fill areas to master plan the extension of public infrastructure.

PF-I-2. The City will work with the landowners to prepare comprehensive development plans equitable to all landowners and the City.

PF-I-3. The City will investigate means of serving these areas with minimal capital expenditure and will identify and implement the most feasible funding mechanism.

FIGURE 6-1
INFRASTRUCTURE DEVELOPMENT INFILL AREAS



6.3 DOMESTIC WATER

Supply

Portola provides water for domestic consumption and fire flow. The current sources of city water supply include Willow Creek Springs and municipal wells. Additional water capacity can be developed from new wells in the city, the unused springs located on Beckwourth Peak, and resumption of the Lake Davis supply.

The total average water supply available to the City is approximately 1,400,000 gallons per day. If all wells operated continuously over a 24 hour period the peak production is approximately 1,740,000 gallons per day. The current sources include:

Willow Creek Springs	312 gpm
Maintenance Yard Well	300 gpm
Commercial Street Well	600 gpm

The City owns a subterranean water collection system on 160 acres at Willow Creek Springs, located approximately 4 miles northwest of the City. Willow Creek was originally developed by the City in 1957. The source was further improved with the construction of underground galleries in 1974. With these improvements the Willow Creek facility consistently produces approximately 312 gallons per minute (503 acre feet per year). Potential for connecting additional spring "pods" to the system is believed to be limited to less than 100 gallons per minute (gpm) (Pyramid Engineers, page 11). The water is delivered to the City's terminal facility through an 8 inch pipe. A 1958 report by the state Department of Public Health reported the pipe capacity at 667 gpm, more than double the output of the springs. Though this has decreased markedly with age, the delivery system probably has some unused available capacity.

The City operates two wells located on the south side of town. The Maintenance Yard Well, located in the Portola Corporation Yard at First and Main Streets was drilled in 1993 and fully improved as a municipal water supply in 1995. The well has consistently yielded 300 to 320 gpm.

The Commercial Street Park Well, located at the intersection of Commercial Street and Gulling Street, was put in service in 1998. This well has an estimated sustained yield of 600 gpm.

The City has rights to four separate spring sources on Beckwourth Peak, south of the City- Turner, Malloy, Golden and Darby. Total estimated capacity of these springs is 170 gpm (270 acre-feet per year). The City stopped using the springs as a water source in 1971, after the Lake Davis water became available. At that time the Lake Davis water was considered more reliable and subject to fewer potential health hazards. Approximately 30,000 feet of antiquated and substandard water lines connect the spring sources with the City's distribution system.

Development of these springs for future use would require improvements to collect the water below ground (below root level) and a new delivery pipeline system. The cost of such improvements is unknown, but likely to be substantial relative to the amount of water that can be delivered.

Lake Davis Water Treatment Plant

The Lake Davis Water Treatment Plant, was constructed as part of the State Water Project, and commenced deliveries to the City in 1970. In 1997 the California Department of Fish and Game (DFG) poisoned the lake in an attempt to remove the invasive Northern Pike fish. Domestic use of the lake water was terminated as a result of that action. In May 1999, DFG reported that the species Northern Pike had been rediscovered in Lake Davis. This announcement led to concerns about the future use of Lake Davis as a potable water supply and a 2007 chemical treatment. No pick have been found in Lake Davis since 2007.

In the following years, after numerous public hearings and the settlement of a lawsuit that resulted in an agreement to bring Lake Davis Water Treatment Plan up to new Safe Drinking Water Act standards, the City and County entered into an agreement to work together to bring the Plant back online. Currently, the LDWTP is substantially complete;

however it has not been accepted into use.

Future Water Supply and Demand

The existing water supply and delivery system is adequate only for the existing community. Land use development anticipated in the Land Use Element will require an increase in the water supply and the expansion and upgrading of the water storage and distribution system. The City completed a Water System Master Plan in 2006 that addresses the water supply and distribution needs for the growth of the community.

Water demand for future development is estimated on the basis of 375 gallons per day per single family dwelling. This estimate considers that all new and renovated residential development will be required to use water conserving fixtures, and that the used of water for outdoor irrigation in the mountain environment is relatively less than required in large lot residential use in other climates. The growing season is relatively short and the style of landscaping typically relies on native materials that require little irrigation. Turf landscaping is not restricted in private yards, but the use of lawn areas is typically small compared to conventional suburban areas. Therefore, there is no difference in estimated water demand between large estate lot and small urban lots.

The future demand for water is based on the average water demand for a single family home. The average water requirement for a single family home is referred to as a "dwelling unit equivalent" (or DUE), and all water demand for all uses are measured in "dwelling unit equivalents". This measure includes non-residential units.

Commercial and light industrial water use will vary with the type of activity. Large water use industrial activities cannot be accommodated in the community unless a supplemental water supply is developed. For estimating the average commercial use, the water demand is based on an assumed .5 DUE per acre.

Distribution

The water distribution service area includes the city as well as small, unincorporated areas to the north of Joy Road and portions of the Portola Heights neighborhood. All of the City's supply and storage facilities are in good operating order and comply with current water supply standards. Water storage for the City is in three covered, above-ground steel tanks. The Northside tank is a 1.0 million-gallon facility installed in 1976. A 250,000 gallon tank and a 500,000 gallon tank located south of the high school serves the City south of the river.

Policies: Water Supply and Distribution

PF-P-5. Secure sufficient sources of water to meet the needs of the existing community and planned growth.

PF-P-6. Domestic water will be allocated first to serve residential and commercial uses that exist prior to adoption of this General Plan.

PF-P-7. The City will allocate water for future development to maintain a balance of jobs and housing. Exceptionally high water users that do not generate a reasonable number of jobs will not be permitted in the absence of other significant benefits to the community.

PF-P-8. City water service will not be extended to unincorporated areas unless an adequate supply is available for all areas within the city.

PF-P-9. The City will develop a program for the use of recycled water for exterior landscaping within the parameters of State and County Health Codes and standards.

PF-P-10. Develop and implement water conservation measures as necessary elements of the water system.

PF-P-11. Ensure that all development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.

PF-P-12. Monitor water quality regularly and take necessary measures to prevent contamination.

PF-P-13. Provide an emergency backup system which that meets 150% of average demand.

Implementation: Water Supply and Distribution

PF-I-4. The City will prepare and adopt a Water System Master Plan that identifies the sources of water and the treatment, storage anddistribution system required to serve the future growth of Portola. The Master Plan will establish a baseline water capacity sufficient to serve the community as of 2000. All subsequent water uses will be required to demonstrate the availability of water supply, storage, and distribution before approval of any land use entitlements. The City will maintain a City-wide map of all water distribution and storage system components and monitor the condition of the system on a regular basis.

PF-I-5. The City will continue to identify and secure water supplies from ground water sources, and consider utilization of Lake Davis water.

PF-I-6. The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

PF-I-7. The City will encourage the use of recycled water for landscape irrigation where feasible within the parameters of State and County Health Codes and standards.

PF-I-8. The City will continue to monitor water quality.

6.4 SEWER

Sewer collection and treatment systems in Portola have been constructed piece meal over a period of decades. Serious infiltration problems and inadequate treatment resulted in upgrading the collection system and improvements to the treatment plant during the 1990's. The current system is adequate for the existing community, but expansion of the collection system will be needed to accommodate the development anticipated in the Land Use Element. In addition, improvements are required to make full use of the treatment plant.

Collection System

The existing collection system is comprised of 15 miles of six, eight, or ten-inch lines of varying materials. The sewage collection system includes a Northside Pumping Station and a Southside Pumping Station. Both of these were constructed in the late 1940's.

Prior to improvements completed in 1997 and in 1999, leaky sewer mains and laterals contributed an estimated average of .68 million gallons per day (mgd) of inflow and infiltration during the wet weather season to the treatment plant in 1997. The estimated total peak wet weather flow to the treatment plant was 1.56 mgd.

Improvements to the pumping stations and the treatment plant were completed in Summer, 1997 as part of the State Revolving Loan Fund Project No. C-06-4364, Phase I of improvements to the entire city sewer system. Phase I addressed fundamental causes of past sewage surcharges by substantial reconstruction of the Northside and Southside pumping stations including: complete replacement of motors, pumps and piping, installation of new, optimized controls, correction of or addition to wet wells, addition of auxiliary power and building modifications.

Sewage Treatment

Sewage treatment consists of aeration and settling ponds. The ponds provide primary treatment in a total of 17.3 acres. The last step of sewage treatment is the chlorination/ dechlorination of pond discharge prior to flow into the 5.8 acre storage pond.

Treated and disinfected effluent is discharged from the storage pond to 1.8 acres of constructed wetland adjacent to the River. Subject to Waste Discharge Order 92-147, the treated and disinfected effluent may be discharged to the River only during the period from November 1st to August 15th. Expanded pond area and effluent chlorination facilities were constructed in 1992.

Phase I also included improved sewage treatment by providing inter-pond piping between the stabilization ponds as well as the aeration pond and emergency aeration pond. This piping provides complete flexibility and routing through and/or around any of the seven noted ponds. The 1992 improvements to the pond and treatment system have served to assure discharge of effluent in conformance with prevailing water quality standards and regulations. Discharge from the City treatment facility continues to be to the Feather River during the Winter and to constructed wetlands in the Summer, in accord with the Waste Discharge Requirements.

Subsequent to the improvements completed in 1997 the treatment plant has capacity to process an average dry weather flow of 0.50 million gallons per day (mgd). The peak wet weather flow capacity is 0.74 mgd and the design capacity is 0.75 mgd.

Average Household Demand for Sewer Service

The average daily flow generated by a single family home dwelling unit equivalent is 218 gallons. However, inflow and infiltration increase the average wet weather flow to 317 gallons per day per dwelling unit. Reductions in average dry weather flow due to improved pipeline construction found in new development will further reduce the average daily flow to 275 gallons per dwelling unit equivalent (DUE) per day in new construction areas.

At the average rate of 275 gallons per day per dwelling unit equivalent, the wastewater treatment plant has the capacity to serve a total of 1,818 dwelling unit equivalents, approximately double the current demand for wastewater treatment in the City.

Policies: Wastewater Collection and Treatment

PF-P-14. Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.

PF-P-15. The City will require that collection systems be designed on a gravity-flow basis except where a site-specific engineering analysis clearly demonstrates the long-term cost effectiveness of pump facilities.

PF-P-16. The City will maintain capacity to process combined residential, commercial, and industrial flow.

PF-P-17. The City will maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

Implementation: Wastewater Collection and Treatment

PF-I-9. The City will require all sewage generators within its service area to connect to the city's system, except those areas where on-site treatment and disposal facilities are deemed appropriate.

PF-I-10. The City will encourage and permit an industrial pretreatment program for the Portola Business Park and other industrial uses in accordance with state and federal requirements.

PF-I-11. The City will consider the use of sub-area or project specific wastewater treatment facilities that use innovative technologies that produce tertiary effluent with minimal energy costs. The intent is to encourage water recycling and reduce future demands on the existing city

plant.

PF-I-12. The City will investigate methods of improving the quality of the effluent from the City plant and will investigate options for reuse of treated wastewater. The recycled wastewater will be used for irrigation of public recreation lands, restoration of wetland areas, and irrigation of landscaped areas.

PF-I-13. The city will promote reduced wastewater system demand through efficient water use by:

a. requiring water conserving design and equipment in new construction;

b. encouraging retrofitting with water conserving devices;

c. designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and

d. maintaining a city-wide map of all sewer collection system components and monitor the condition of the system on a regular basis.

PF-I-14. The City will monitor the increase in wastewater flow on an annual basis and will periodically expand the capacity of the wastewater treatment plant to ensure that there is capacity to serve a minimum of five years of additional projected growth at any time.

6.5 MAJOR DRAINAGE

Storm drainage is periodically a critical issue because a narrow corridor along the river is subject to flooding. Much of the flooding is caused by conditions outside the City rather than local development. Nonetheless, as the City continues to develop, there will be an ongoing need to minimize flood waters in the existing flood plain and along the major drainage channels. Storm water drainage is managed in a system of open channels, such as the Wild Cat Creek channel in City Park, and underground storm drains. The City of Portola Master Drainage Plan (1987) identified a series of specific improvements required to accommodate drainage of the existing urban area of the City. In addition, the plan identified other measures that apply to future development:

- Easements should be obtained where they do not already exist, along all major stormwater systems that lie outside public road rights-of-way. The granting of these easements should be made a standard practice with the approval of development projects.

- Orderly development of the City storm drainage system can be further enhanced by the construction of curb and gutter and the grading of lots to flow to the street or drainage easement as a part of individual lot development.

Policies: Storm Water

PF-P-18. The City will seek to minimize additional storm water runoff from new development areas.

PF-P-19. The City will establish equitable methods of paying for future storm drainage improvements.

PF-P-20. Storm water will be managed in natural channels rather than underground pipes where feasible.

PF-P-21. No net increase in storm water compared to the undeveloped condition will be permitted in new development areas.

PF-P-22. Stormwater system improvements will be extended to the in-fill areas shown in Figure 6-1 when feasible.

Implementation: Storm Water

PF-I-15. The City will explore alternatives to storm water management methods including on-site retention and detention basins, and maintain a City-wide map of all drainage system components and monitor the condition of the system on a regular basis.

PF-I-16. Developers will be encouraged to consider use of porous materials for outdoor spaces, paving, and sidewalks where feasible to promote groundwater infiltration.

PF-I-17. The City will explore the feasibility of a City-wide rate structure to fund storm water improvements and on-going maintenance. Require all new development to pay this fee as a condition of the project approval.

6.6 COMMUNICATIONS

Communication is essential to economic development for Portola. New businesses will be attracted to Portola for the quality of life, but many will need state-of-the-art communications to sustain their businesses. Currently, cable service is offered by New Day Broadband under a City Franchise Agreement. In the future, access to the Internet through cable or other technology will enable residents and businesses to have the same level of communications technology, and all the information and services that are available in any metropolitan region. The intent is to ensure that the highest level of communications technology is available to businesses and residents. The City will seek to be positioned to take advantage of new technologies.

Policies: Communications

PF-P-22. Expand the level of communications service throughout the City through cable and other technologies as they become available.

Implementation: Communications

PF-I-18. Explore the development of additional telecommunications technology within the City including, but not limited to, fiber optic cable, DSL, and other cable services.

PF-I-19. Indicate to potential service providers the interest to expand communication services in the City, and the intent to ensure that residents and businesses have access to the highest level of communications technology feasible in the Portola area.

PF-I-20. Cooperate with service providers to enable construction of improvements for communications.

PF-I-21. Where necessary to ensure that telecommunications will be provided in the most cost effective manner with minimal disruption to city streets and services, the city will require that all new development install sleeves, conduit, and other underground facilities required for future telecommunication services.

6.7 ELECTRICITY

Availability of relatively cost effective power is essential for many types of businesses and for the residents of Portola. In order to expand economic development opportunities the City must seek and support expansion of the available power supply.

Liberty Energy provides electric power to Portola. The Liberty Energy substation is located at the intersection of Gulling Street and Fourth Avenue. Power is delivered to the substation in the transmission line along Pole Line Road that connects east to Loyalton. The substation contains two transformers with a capacity of 3 megawatts and 5 megawatts, respectively. Portola currently uses approximately 5 of the total 8 megawatts available from this substation.

Liberty Energy currently maintains three diesel generators at the substation as backup power in case of power outages in Portola or Loyalton. These generators have a capacity of two (2) megawatts each, and are currently near their backup capacity in cases of widespread power outages due to such events as large winter storms.

Power is distributed throughout Portola in a system of overhead power lines typically along the public streets. Power lines are underground in the more recent subdivisions, such as Ridgewood.

Policies: Electric Service

PF-P-23. Ensure that reliable, adequate electric service is available to all uses in the City at reasonable cost.

PF-P-24. Cooperate with and encourage efforts to expand the opportunities for electric power service in the City.

Implementation: Electric Service

PF-I-22. The City will investigate opportunities to develop alternative sources of electric energy as they become available.

PF-I-23. The City will consider participation with utility companies in generating and/or distributing electric service within the City.

PF-I-24. The City will encourage energy conservation measures and innovative uses of solar energy, heat recovery, and cogeneration in all structures and industrial processes.

PF-I-25. The City will communicate its major development plans with utility companies and coordinate planning expansion of these utilities.

PF-I-26. The City will require undergrounding of utility lines in new development and as areas are redeveloped, except where infeasible for operational reasons.

6.8 SOLID WASTE

Solid waste generated by homes and businesses in Portola is collected by Intermountain Disposal (pursuant to a Franchise Agreement), collected at the Delleker Transfer Station, and then transported to the Lockwood Regional Landfill in Sparks, Nevada. Waste consists predominantly of mixed municipal solid wastes. Self-haul customers also deliver their waste to the Delleker Transfer Station. Ultimately, the waste is transported to the Lockwood Regional Landfill in Sparks, Nevada.

The City owns the Portola Landfill, which collected the City's waste through October 2002. State and Federal regulations placed on the City's landfill prompted its early closure for acceptance of solid waste material. Effective November 1, 2002, the Portola Landfill no longer accepts solid waste material. The area east of the landfill is currently operated by Intermountain Disposal as an Environmental Reclamation Center and is open seasonally to the public.

Intermountain Disposal provides curbside pickup and recycling, yard waste pickup, bulky waste pickup, rear-load containers, roll-off containers, storage units

City of Portola Source Reduction and Recycling Element

The City of Portola has established the following goals for the integrated management of solid waste generated within its borders:

- To provide for the safe, efficient, and cost effective removal of waste from residences, businesses, and industry.

- To provide adequate disposal capacity at local or regional landfills for waste generated in the City.
- To reduce the amount of waste disposed of in landfills by:
  - ~ reducing the amount of waste generated (i.e. source reduction);
  - ~ maximizing the recycling of generated waste;
  - ~ utilizing the nutrient value of generated waste through composting;
  - ~ to dispose of the remaining waste in a safe and environmentally sound manner.
- To assure the development of recycling, composting, waste transfer, and disposal facilities which satisfy the highest established environmental standards and regulations.
- To provide for the safe and efficient handling of special wastes.

The Source Reduction and Recycling Element adopted by the City of Portola in 1996 identified the total waste generated by category through 2005, and projected the total refuse disposal through 2014.

Policies: Solid Waste Management

PF-P-25. The City will implement and enforce the provisions of it Source Reduction and Recycling Element.

6.9 EDUCATION

Educational opportunities are important for the quality of life of residents and the overall sense of community that a good school system provides. The education programs and facilities are an integral part of the community. Good local education opportunity is also is an important factor in economic development. The local public school system is essential because future employees will prefer to locate where their children have access to quality education.

Advanced education and training is important for residents to expand their interests and increase their job skills. Technological advances in many fields require that workers have access to on-going training. Therefore, adult education and lifelong learning opportunities will become increasingly important.

Existing Primary and Secondary Education Resources

The Plumas Unified School District (PUSD) is a County-wide district. Charter schools not operated by PUSD are also located in Portola. PUSD operates three (3) schools in Portola:

- C. Roy Carmichael Elementary School
- Portola Jr. /Sr. High School
- Jim Beckwourth High School East (Continuation)

Student enrollment throughout the District, including the Portola Attendance Area, has been in steady decline. However, the Portola Attendance Area is projected to experience a modest resurgence in enrollment. The population growth projected in the Land Use Element suggests that the demand for school space will increase significantly over the twenty year horizon of the General Plan. If development occurs at an average growth rate of five percent annually, the Portola Attendance Area will increase by approximately 1200 dwellings. At an average 0.4 elementary and middle school children per household, the total enrollment in those grades will increase by approximately 466 children. This indicates the need for an additional elementary school with a capacity for 400 to 450 students. However, current (2010) trends do not indicate population growth in the schools; C. Roy Carmichael Elementary School has a student population of 320 and Portola Junior/Senior High School has a student population of 300.

At an average of approximately 0.2 high school students per household, the total high school enrollment will increase by approximately 233 students over the next twenty years.

This is substantially higher than the current district projections that indicates a growth in enrollment of only 34 students for grades K-6 over five years (2002/03), or an average annual growth rate of 1.21%. The five-year projection for grades 7-8 also shows a growth in enrollment of 24 students, a 2.81% average annual growth rate. The projection for

grades 9-12 indicates a cumulative growth of 48 students in five years, a 3.57% growth rate. The five year overall K-12 enrollment of 1,124 shows annual growth rate averaging 2.02% or approximately 21 students per year, a cumulative growth rate of 103 students from the 1997/98 enrollment.

The 1997-98 enrollment figures show that only Feather River Middle School is operating above capacity, with 65 students more than the State capacity of 203 students. The growth projections used in the General Plan indicate that the population in the Portola area could more than double in the next two decades. Such growth would surely increase the demand for classroom space beyond the capacity of the existing campuses.

Additional school sites, if needed, will require substantial time for advance planning, and ultimately design and construction. The district and the City need to cooperatively plan for the location of future schools.

Existing Post Secondary Education Resources

Post secondary education is provided by the Feather River College. Located in Quincy, the college also provides classes in Portola. The community college is an important resource that should have an expanded presence in Portola as the community grows as the economic hub of east Plumas County. The city will encourage the expansion of the community college programs and, ultimately, facilities within the community. The growth of telecommunications as a teaching tool can help the community college expand their program offerings locally. Similarly, many larger institutions offer extended learning programs through telecommunications. In keeping with the goals and policies for expanding telecommunications opportunities in Portola, the City will encourage the expansion of education opportunities.

The University of Nevada, Reno is the nearest four year institution. The opportunities for extending education through on campus programs are expanding for Portola residents with the growth in commuting to the Reno area for employment.

Policies: Education

PF-P-26. Adequate facilities must be shown to be available in a timely manner before approval will be granted to new residential development.

PF-P-27. Financing of new school facilities will be identified and assured before new development is approved.

PF-P-28. The City and the School District will work together to develop criteria for the designation of school sites and consider the opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.

PF-P-29. The City and the School District will consider opportunities for joint-use of facilities. If feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimize duplication of services provided, and facilitate shared financial and operational responsibilities.

PF-P-30. Designate public/quasi-public land uses in clusters, such as the civic core area, so that the use of schools, parks, open space, libraries, child care and community activity and service centers create a community or activity focus.

PF-P-31. Where feasible, schools will be located away from hazards or sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured.

Implementation: Education

PF-I-27. The City will inventory all public lands to identify opportunities for joint-use facilities.

PF-I-28. As needed, the City will request a meeting with the Administrator and the Board of Trustees of the school district to review development issues and opportunities for cooperation between the school district and the city.

PF-I-29. The City will encourage the school district to provide curriculum that enhances the economic development potential of the area.

PF-I-30. The City will encourage the Feather River College to expand the education program offerings in Portola.

6.10 LIBRARIES

Libraries are an important part of community quality of life. Even with the expanding use of the Internet as a means of communication and disseminating information, the public library will continue to function as a source of printed information, and a landmark institution that helps define the community.

The Portola Branch Library was built in 1994, and planning for the building included anticipation of the city's future growth. The library is 3,950 square feet in size, and was built to serve a population up to 6,000 people. The library can hold up to 14,000 volumes. Currently, the library has 10,250 volumes. On the basis of 14,000 volumes to serve 6,000 people, the current service capacity of the library is a population of 4,393 people. This is approximately double the current population of the City, but this library serves the population of eastern Plumas County.

The library is staffed by one .9 FTE (full time employee) branch library assistant, and is open 37 hour per week. The library is a branch of the Plumas County Library and is funded entirely by the County. The City of Portola agrees to plow the library parking lot in the winter.

Staffing is based primarily on circulation (number of books checked out). An increase in population would cause a proportional increase in the demand for services. The growth projections used in this General Plan indicate that the population in the Portola area could more than double in the next two decades. Such growth would surely increase the demand for library services. However, the increased use of the Internet and other information resources may diminish the normal level of increase.

Policies: Libraries

PF-P-32. The City and County will work together to develop criteria for expansion of library service in the City.

PF-P-33. As the need for additional capacity emerges, the City and County will consider opportunities for joint-use of facilities. If feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimize duplication of services provided, and facilitate shared financial and operational responsibilities.

PF-P-34. Designate public/quasi-public land uses in clusters, such as the civic core area, so that the use of schools, parks, open space, libraries, child care, and community activity and service centers create a community or activity focus.

6.11 RECREATION AND PARKS

Parks are an important part of the overall vision for the City of Portola. The overall intent of the park improvements in the City is to provide recreation amenities for the residents. A secondary objective is to provide space for public gatherings that may attract visitors to the community. In addition to the typical purpose of providing open space and recreation for City residents, the parks are envisioned as space for music and craft fairs, exhibitions, and other public events. Consequently, the parks need to be designed to serve a variety of roles.

In order to meet the primary objective of resident recreation, the park facilities need to be designed with the local

neighborhoods in mind. With the current distribution of parks (one to the north and one to the south of the river) there is a park within reasonable walking distance of all residents. The intent is to provide a series of parks within convenient walking distance of one another and linked by a pedestrian system consisting of sidewalks and trails through open space areas.

The City currently owns three developed park sites including the 35-acre Riverwalk Park, the 13.8-acre City Park, and the 5-acre Baldwin Park. The city owns a total of 53.8 acres, or 24.5 acres per one thousand residents. A total of 18.8 acres of park are fully improved.

Under the California Subdivision Map Act (the "Quimby Act") a City or County can require the dedication of up to five (5) acres of park per one thousand residents. In lieu of dedication of land, a developer may pay a fee for dedication of land to the city.

The Riverwalk Park planned along the north bank of the Feather River is a major visual and social center for the community. It is envisioned as a place for active recreation, quiet open space, and river access, as well as a highly visible open space that helps establish the character of the city.

Policies: Recreation and Parks

PF-P-41. The Riverwalk Park and the City Park are to provide the primary areas for public activities that will draw visitors to the community. These parks will include picnic areas, restrooms, and a turf area that can be used for craft fairs, music presentations, sporting events and similar activities. Parking will be provided near or on the park site.

PF-P-42. Neighborhood parks shall conform to the following typical standards:

a. Minimum size shall be 3 usable acres.

b. The typical service area for a neighborhood park shall be approximately 1/4 mile.

c. Neighborhood parks shall include a turf area of approximately one acre, a tot lot, a small picnic area, and a drinking fountain. Public restrooms are not included in a neighborhood park.

d. A public street shall front the park on at least two sides. The intent is to provide a clear view into the park from a street front and to encourage the use of the park.

Implementation: Recreation and Parks

PF-I-31. The City will establish specific development criteria for the use of Riverwalk Park in a Master Plan for this area.

PF-I-32. The City will seek joint-use of tennis courts and other public use facilities with the school district.

PF-I-33. The City will establish a park development and maintenance fee program applied to all new residential development.

PF-I-34. All new residential development will be required to make a land dedication or pay an in-lieu fee for park land dedication based on providing 5 acres per 1,000 residents.

6.12 POLICE

Growth in the City of Portola, along with increased tourism and businesses, will incrementally increase the demand for police protection over time. Increases in the level of police services will need to grow in response to population increases. It is intended that the police service in Portola be based on principles of Community Oriented Policing/Problem Solving Policing (COP/PSP). This involves a community-based, problem solving, police service organization that would continuously focus on meeting community needs. Fundamental to these principles is formation

of a partnership involving the delivery of police services between the community, the police and elected officials focused on making the City a quality place to live, work and play.

A primary characteristic of community oriented policing is involvement in the community. This can take the form of direct contact with the residents, such as foot or bicycle patrols in the neighborhoods, recreation, and commercial areas, participation in local youth activities, and working relationships with the local business community. The police service may include a mix of commissioned officers and non-commissioned officers designed to use noncommissioned officers for calls which require less safety training and responsibility. The non-commissioned officers, known as Community Service Officers, will be trained in recognition and identification of personal and public safety symptoms, criminal and traffic accident report writing and crime scene reconstruction. They would assist the commissioned officers by monitoring the neighborhoods, coordinating with block watch activities and assortment of crime prevention/human service activities. Such an approach would be particularly useful if the city pursues tourism and visitor based economic development. Such economic activity will involve management of large groups of visitors during special events. The guiding concept is to develop a police service tailored to the particular needs of Portola.

Law enforcement in Portola is provided by the Plumas County Sheriff's Office. There are currently five (5) patrolmen and one (1) supervisor serving the eastern portion of the County.

The patrol service for the eastern portion of the County is headquartered at the Sheriff's substation located on Gulling Street in Portola adjacent to the Portola Library and City Hall. The City of Portola contracts with the PCSO to provide patrol service within the city limits. The contract is renegotiated periodically to reflect increased levels of service and costs of service.

In order for the city to pursue implementation of the Community Oriented Policing concept it is necessary to establish specific guidelines and objectives for police services. This can be accomplished through close coordination with the County Sheriff, but as the community grows, the concept of a City-based police service should be considered.

Policies: Police

PF-P-42. The City will establish a standard for the level of police service and will establish the criteria for determining the circumstances under which police service will be improved.

Implementation: Police

PF-I-35. The City will review the level of service provided by the County Sheriff and determine whether increased levels of service are required to serve additional population.

PF-I-36. The City will establish the means of funding additional police service through benefit assessment districts, sales tax, fees for development, or other methods.

PF-I-37. The City will establish a plan to incorporate Community Oriented Policing principles in the current police service and will expand and tailor the service over time to meet the specific needs of the community.

PF-I-38. The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for police patrols and emergency response.

6.13 FIRE PROTECTION

Fire protection and emergency response is essential for the well-being of the city residents and is fundamental to attract many types of business to the community. The cumulative effect of growth in the city will incrementally increase the number of calls for service from the Portola Fire Department (PFD). The current Insurance Services Organization (ISO) level of service, and other indicators of service capability, will be affected over time. The effects will be in terms of personnel requirements for training and emergency responses, and in increased need to upgrade equipment and engines.

The City of Portola Fire Department (PFD) provides fire protection throughout the city and in adjacent areas through mutual aid agreements. The PFD is primarily a volunteer organization, but maintains an ISO rating of 5. This reflects a relatively high standard of training, personnel, equipment, response times, and fire suppression water availability for a small, rural community. The PFD maintains two stations, one north of the Middle Fork Feather River at the intersection of Gulling Street and Plumas Street, and the other south of the river at the intersection of First Avenue and Pacific Street.

The City Engineer has identified a potential fire flow deficiency within portions of the city resulting from the elevation relative to, and the distance from, the south storage tank. This will be resolved by constructing a new water storage tank at a higher elevation on the south side of the city, and construction of new water distribution lines to serve Area B.

Policies: Fire Protection

PF-P-43. The City will establish fundamental standards for level of service that include response times and level of response criteria and will establish the criteria for determining the circumstances under which fire service will be improved.

Implementation: Fire Protection

PF-I-39. New development will participate in the funding of a prorata share of new fire protection equipment, including personnel safety equipment, engines, and stations through benefit assessment districts, sales tax, fees for development or other methods as may be established for this purpose.

PF-I-40. New construction will conform to all standards for fire safety as established by the City through zoning, other municipal codes, and building construction codes.

PF-I-41. The City Engineer will ensure that new development meets City standards for fire safety access and emergency egress.

7. SAFETY ELEMENT

Safety hazards can occur as a result of the actions of nature or works of man. The intent of the Safety Element is to identify the potential hazards in the community that must be considered when planning the location, type, and intensity of development. The primary objective of the Safety Element is to reduce the potential for loss of life, injuries, and property damage which could result from a natural or man caused disaster.

Authority

The Safety Element is mandated by the California Government Code (65302 (g)). The statute requires:

> *".. A Safety Element for the protection of the community from any unreasonable risks associated with the effects of seismically induced ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. It shall also address evacuation routes, peak-load, water-supply requirements, and minimum road widths and clearances around structures as those items relate to identified fire and geologic hazards."*

Specific topics addressed in this Element include:

- Seismic and Geologic Hazards
- Flood Hazards
- Dam Failure Inundation
- Wildland Fire Protection
- Hazardous Materials

Relationship to Other Elements

The mandated Safety Element relates to the subjects addressed in the Land Use Element, Conservation and Open Space Element, Public Services and Facilities Element, and Air Quality Element.

7.1 SEISMIC AND GEOLOGIC HAZARDS

Geology of the Portola Region

Portola is located in the Humbug Valley Ground Water Basin. The Humbug Valley, the Sierra Valley to the east and the Mohawk Valley to the west, are believed to have been formed during the Pliocene-Pleistocene Eras (3 million to 11 million years ago). Evidently, these were undrained basins trapped among the volcanoes and granite knobs of the region. They filled with water during a time when rainfall was heavier than it is now, and became lakes until their outlet streams managed to erode valleys deep enough to restore drainage into the Feather River.

Much of the floor of Humbug Valley is comprised of lake deposits from the ancient lake. Intermediate alluvium, unconsolidated sand and silt not over 60 feet in thickness, overlay the lake deposits in areas adjacent to the Feather River, most of the City of Portola south of Highway 70, and the Charles Valley area north of Highway 70. Alluvial soils are among those least resistant to seismic shaking.

It is interesting that the Feather River drains this region westward toward and through the high Sierra Nevada Mountains. The river would be expected to flow "down hill" away from the high Sierra toward the east. This unexpected direction of flow indicates that the river is older than the outlines of the present landscape, and managed to maintain its westward course through all the regional faulting and volcanism of the last several million years. The river was able to erode its channel downward more rapidly than the uplift of the Sierra Nevada block.

The geology of the area is characterized as Ql (Quaternary lake beds) on the Geologic Map of the Chico Quadrangle, California (California Division of Mines and Geology, 1977). Quaternary lake beds are described as pebble conglomerates, sands, and clays.

Landslide Hazard Identification Program

Under the Seismic Hazards Mapping Act of 1990 (AB 3897), regional data must be gathered and zones mapped to identify areas where earthquake geologic hazards may occur. This information is to be used in city and county hazard mitigation plans and incorporated into general plan safety elements. The existing conditions are described in Appendix A.

Alquist Priolo Act

The Alquist-Priolo Special Studies Zone Act of 1972 is directed at areas identified by the State Geologist as likely to experience earthquakes. The Act focuses on surface fault rupture and not shaking. It addresses earthquake safety in building permits and subdivision procedures by requiring project applicants to submit a registered geologist's report describing potential for on-site surface rupture.

There are no active faults in Portola that have been zoned by the State Geologist under the Alquist-Priolo Earthquake Fault Zoning Act. The nearest seismically active faults are the Mohawk Valley Fault located approximately 8.5 miles (13.7 kilometers) to the west of Portola, and the Honey Lake Fault located approximately 21 miles (33.8 kilometers) to the east. The nearest potentially active fault zone is the Sulphur Creek Fault Zone located approximately 8 miles (12.9 kilometers) to the southwest, which has an estimated maximum credible earthquake magnitude of 6.5.

7.1.1 Seismic and Geologic Safety Goals

Goal SG-1. Minimize injury and property damage due to seismic activity and geologic hazards.

Policies: Seismic and Geologic Safety

SG-P-1. Mitigate the potential impacts of geologic hazards through building plan review.

SG-P-2. Comply with California State seismic and building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous material manufacture and storage facilities, bridges, and large public assembly halls.

SG-P-3. Create and adopt slope development standards to be used in the planning process for any area identified as having significant slope.

SG-P-4. Avoid seismic-induced settlement of uncompacted fills.

Implementation: Seismic and Geologic Safety

SG-I-1. Employ the services of a professional Registered Geotechnical Engineer or Certified Engineering Geologist to evaluate proposed development within the Quaternary lacustrine deposits of Pleistocene Lake Mohawk (Qlm).

SG-I-2. Employ the services of a professional Registered Geotechnical Engineer or Certified Engineering Geologist for hillside development and to evaluate the potential for landslides (including debris slides and mudslides).

SG-I-3. Comply with Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulate building structural material and reinforcement.

SG-I-5. Require contour grading, where feasible, with drainage directed away from the tops of slopes.

SG-I-6. Require revegetation to control erosion and mitigate the appearance of engineered slopes.

SG-I-7. Implement the Uniform Building Code sections related to Excavation and Grading Ordinance, which requires that hillside lots with substantial cuts and fills have the fills properly compacted by sheepsfoot roller.

SG-I-8. Develop a comprehensive plan for septic tanks and water-wells based upon Berry's Geologic Map and applicable regulations of the Regional Water Quality Control Board.

SG-I-9. Comply with California Health and Safety Code 19100 et seq (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by lateral forces caused by earthquakes and wind.

7.2 FLOOD HAZARDS

The primary flood hazard in Portola is the Middle Fork Feather River, a Federally designated Wild and Scenic River, which courses through the City. The creeks and tributaries which drain into the river also pose flood hazards when snow melt or storm runoff exceeds drainage capacity.

Floodplain Area

The boundaries of the 100-year floodplain for the Feather River are delineated by the Federal Emergency Management Agency (FEMA) on the basis of hydrology, topography, and modeling of flow during predicted rainstorms. Areas designated as flood zones are shown on published Flood Insurance Rate Maps (FIRM). FEMA requirements for residential development in a designated 'A' Zone include raising the first floor to at or above the base flood elevation (100-year). The National Flood Insurance Program (NFIP) requires owners of property within designated flood zones to purchase flood insurance.

7.2.1 Flood Safety Goals

Goal F-1. Minimize the potential for loss of life and property due to flooding.

Goal F-2. Pursue flood control solutions which minimize environmental impacts.

Policies: Flood Safety

F-P-1. Regulate all uses and development in areas subject to potential flooding through zoning and other land use regulations.

F-P-2. Prohibit development that is not raised above the 100-year floodplain level.

F-P-3. Pursue a regional approach to flood issues.

F-P-4. Combine flood control, recreation, water quality, and open space functions, where feasible.

F-P-5. Ensure that any existing structures subject to the 100-year flood provide adequate protection from flood hazards.

F-P-6. Ensure that impacts of flooding are adequately analyzed when considering areas for future urban expansion.

F-P-7. Protect fisheries and allow for adequate water passage to ensure the survival of downstream riparian ecosystems.

F-P-8. Maintain natural stream courses and adjacent habitat, where feasible.

Implementation: Flood Safety

F-I-1. Enforce compliance with the City of Portola Master Drainage Plan.

F-I-2. Provide flood warning and forecasting information to City residents.

F-I-3. Promote the use of open grassy swales to carry runoff from the urban areas to natural drainage ways.

F-I-4. Discourage large continuous paved areas.

F-I-5. Encourage the use of pervious paving materials.

F-I-6. Ensure development design which prevents the diversion of runoff out of natural water courses onto adjacent parcels.

F-I-7. Encourage development to discharge runoff into pervious areas within or adjacent to natural water courses.

F-I-8. Require that building pads be located a sufficient distance above the 100-year floodplain to minimize the potential for flooding.

F-I-9. Require a Drainage Plan as condition of the approval for urban residential subdivisions over ten acres in area. Require the Plan to provide mitigation to insure that the cumulative rate of peak runoff is maintained at pre-development levels.

7.3 DAM FAILURE INUNDATION

The Grizzly Creek Dam at Lake Davis is located on Grizzly Creek which drains into the Middle Fork Feather River in Portola. According to the Grizzly Creek Dam Inundation Map, portions of the 100-year floodplain in Portola would be subject to inundation in the event of dam failure. (See FEMA Flood Zone Map)

Through enforcement of the policies and implementation measures for restricting development within the 100-year floodplain (Subsection 7.2.1 above), the threat to Portola is minimal in the event of failure of the Grizzly Creek Dam.

7.3.1 Dam Failure Safety Goals

Goal DF-1. Minimize injury and property damage due to dam failure inundation.

Policies: Dam Failure Safety

DF-P-1. Ensure that all development is above the inundation zone of any potential dam failure at Lake Davis.

Implementation: Dam Failure Safety

DF-I-1. Enforce the policies and implementation measures for restricting development within the 100-year floodplain.

7.4 WILDLAND FIRE PROTECTION

The scars of a major wildland fire just to the south of Portola High School is ample evidence that the possibility of wildland fire in the area is substantial. The potential for future fires is inherent in Portola's natural setting. Expansion of the City into the forest areas will increase this potential hazard. Consequently, all planning for new development must incorporate fundamental fire safety design criteria that addresses access for emergency vehicles, evacuation of residents, the location and type of construction, and the clearing of vegetation to provide fire safe zones around all

development.

Development in the forest areas around the City are regulated by interlinked statutes and local standards and guidelines.

Uniform Fire Code

The Uniform Fire Code addresses suppression and control of hazardous fire areas. Safeguards are presented which are intended to prevent the occurrence of fires, and to provide adequate fire protection facilities to control the spread of fire which might be caused by recreational, residential, commercial, industrial, or other activities conducted in hazardous fire areas.

California Board of Forestry: SRA Fire Safe Regulations

Subchapter 2 (State Responsibility Areas -SRA- Fire Safe Regulations), Title 14 of the Public Resources Code Section 4290, constitutes the basic wildland fire protection standards of the California Board of Forestry. On May 30, 1991, the Office of Administrative Law (OAL) approved and filed with the Secretary of State the language for the SRA Fire Safe Regulations (and subsequently updated). These standards apply to development projects in state responsibility areas or in local jurisdictions which have adopted SRA Fire Safe Regulations.

California Department of Forestry and Fire Protection

The SRA Fire Safe Regulations are administered by the California Department of Forestry and Fire Protection (CDFFP) Ranger Unit Headquarters in each county. The CDFFP Ranger Unit Headquarters for Plumas County is located in Quincy. Local requirements implementing SRA Fire Safe Regulations are reviewed and approved by the CDFFP.

Plumas County Fire Safe Council

The Plumas County Fire Safe Council is an association of fire fighting and protection agencies in Plumas County. The Council is currently developing a Memorandum of Understanding (MOU) between the member agencies. Primary goals of the Council include education of Plumas County residents regarding fire behavior and protection.

County of Plumas

Plumas County has adopted SRA Fire Safe Regulations. The County has included these regulations in its “New Building Permit Requirements” and "New Subdivision Requirements” publications. These regulations are applicable to development projects within the County’s jurisdiction.

7.4.1 Wildland Fire Safety Goals

Goal WF-1. Protect against injury, loss of life, and damage to property and the environment due to wildland fire.

Policies: Wildland Fire Safety

WF-P-1. Work with the Plumas National Forest, the California Department of Forestry, and Plumas County Fire Departments to establish a cooperative fire fighting agreement in areas prone to wildland fires, and to enhance the benefit to the City of tools such as air tankers and helicopters.

WF-P-2. Work with the Plumas National Forest, the California Department of Forestry, and Plumas County Fire Departments to establish cooperative participation in establishing fuel breaks and prescribed burns.

WF-P-3. Require a Fire Safe Plan for new development.

Implementation: Wildland Fire Safety (Plumas Fire Safe Council recommendations are incorporated by reference to the General Plan as may be amended from time-to-

time)

WF-I-1. Adopt the SRA Fire Safe Council Regulations for existing and new development in the areas adjacent to open forest.

WF-I-2. As a condition of approval for all residential development over ten acres with ten or more dwelling units, a Fire Safe Plan prepared by a Registered Professional Forester shall be submitted to the City. The Fire Safe Plan shall be consistent with the City adopted SRA Fire Safe Council Regulations. The current regulations and future revisions will be adopted by the City of Portola and are incorporated to the General Plan.

7.5 HAZARDOUS MATERIALS

The City of Portola is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the handling of hazardous materials is a daily activity in truck traffic and trains that pass through the City. The Federal Government, under Title 49 of the Code of Federal Regulations, lists thousands of hazardous materials, ranging from radioactive waste and explosives to gasoline, insecticides, and household cleaning products.

Storage

Safe and proper storage of hazardous materials incorporates a variety of techniques, depending upon the type of material being stored. Underground storage tanks are commonly used for the storage of hazardous materials, especially petroleum products. These storage devices are found most often at gas stations and businesses operating vehicle fleets. There are two (2) gas stations within the City of Portola. The Union Pacific Railroad operation facilities are another potential location of hazardous materials storage. Leaking underground storage tanks contaminates the surrounding soil and possibly the water table.

Transportation

Hazardous materials are routinely transported by truck over state and federal highways as well as local roads (e.g., gasoline tankers). The California Vehicle Code Section 31303 requires that hazardous materials be transported via routes with the least overall travel time, and prohibits the transportation of hazardous materials through residential neighborhoods.

The Union Pacific Railroad through the City must be considered a possible source of hazardous materials spills. In the event of a derailing or other railroad accident, the residents could be exposed to any hazardous materials being transported by the railroad.

Disposal

Hazardous materials, used in many household products (e.g., drain cleaners, waste oil, cleaning fluids, insecticides and car batteries), are often improperly disposed of as a part of normal household trash. Furthermore, there is risk to the community from exposure or explosion caused by adding hazardous waste to landfills that are not equipped to handle them.

Emergency Response

Response to a hazardous waste spill varies according to the circumstances under which it is released. Union Pacific Railroad has primary responsibility for hazardous materials spills on its premises. Hazardous materials spills on state and federal highways are the responsibility of Caltrans and the California Highway Patrol (CHP), which provide on-scene management of the spill site and coordinate with the Environmental Health Department, Office of Emergency Services, and the local fire department. Primary responsibility for handling of these events within the City is assigned to the Portola Fire Department.

7.5.1 Hazardous Materials Safety Goals

Goal HM-1. Protect health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

Policies: Hazardous Materials Safety

HM-P-1. Maintain an awareness of hazardous materials in the Portola area.

HM-P-2. Develop an Interagency Hazardous Materials Emergency Plan.

Implementation: Hazardous Materials Safety

HM-I-1. Require the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Portola. The list shall be maintained by the Portola Fire Department (PFD), and updated through periodic review.

HM-I-2. Work with Plumas County and other public agencies to inform consumers about household use and disposal of hazardous materials.

HM-I-3. Cooperate fully with Union Pacific Railroad and other agencies, such as the CHP, in the event of a hazardous material emergency.

HM-I-4. Continue operation of a City hazardous waste pick-up program for household hazardous materials.

8. CONSERVATION AND OPEN SPACE ELEMENT

Clean air and water, healthy forests, meadows, streams and the Feather River make Portola an attractive place to live and work. These assets must be conserved and protected as the community grows and the population increases.

This General Plan seeks to accommodate population growth while conserving, and protecting the area's natural resources and quality of life. Economic development and quality of life are not inconsistent and contradictory goals. Indeed, economic development for the City of Portola and the east Plumas County region depends on protecting the abundant, high quality natural resources that are essential to the quality of life in Portola.

Authority

The Conservation Element and the Open Space Element are both mandated by the Government Code (Sections 65302(d) and 65302(e)). The Conservation Element is required to:

> *". . .provide direction regarding the conservation, development, and utilization of natural resources."*

The Open Space Element is required to:

> *". . .guide the comprehensive and long-range preservation and conservation of 'open-space land' (Section 65563). Open-space land is defined in the code as any parcel or area of land or water that is essentially unimproved and devoted to open-space use (Section 65560(b))."*

The discussion of these topics are organized under the following headings:

- Water Conservation
- Energy Conservation
- Soils and Erosion Control
- Water Quality
- Open Space
- Feather River
- Biological Resources
- Archaeological, Historic, and Cultural Resources
- Mineral Resources

Relationship to Other General Plan Elements

The required topics for Conservation and Open Space indicate substantial overlap. Water supply, energy sources, and outdoor recreation are addressed in the Pubic Services and Facilities Element. Open space is addressed in the Land Use Element. Energy efficiency is discussed in the Community Design Element and the Circulation Element.

8.1 WATER CONSERVATION

Potable water is essential for human habitation. Conservation of water resources is essential for meeting the demands of current and future residents, and new economic development. The primary goals are not only to conserve and protect current water resources, and minimize the demand for new sources of water.

Water supply and conservation is also addressed in Section 6, the Public Services and Facilities Element.

8.1.1 Water Conservation Goals

Goal WC-1. Minimize the consumption of water to reasonable levels consistent with a high level of amenities and quality of life for residents and visitors.

Goal WC-2. Maximize the beneficial uses of water by recycling water for irrigation and other non-potable uses.

Policies: Water Conservation

WC-P-1. Develop and implement water conservation standards for all commercial and industrial development, and for all existing and new residential development.

WC-P-2. Explore potential uses of treated wastewater.

WC-P-3. Protect the quantity of Portola's groundwater.

Implementation: Water Conservation

WC-I-1. Develop a landscape ordinance that provides standards for water conserving landscape practices, including the use of drought tolerant plants, for both public and private projects.

WC-I-2. Develop a public education program to increase public participation in water conservation.

WC-I-3. Require large commercial and industrial water users to submit a use and conservation plan as part of the project entitlement review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

WC-I-4. Cooperate with other agencies and jurisdictions to expand water conservation programs, and to develop methods of water reuse.

WC-I-5. Actively pursue the use of treated wastewater in irrigation and industrial applications, including development of appropriate infrastructure.

8.2 ENERGY CONSERVATION

The potential for growth in Portola will depend on conserving and planning for the future allocation of energy resources. The primary goals are not only to conserve and protect current energy resources, but also to seek new sources of energy for current and future land use.

8.2.1 Energy Conservation Goals

Goal EC-1. Develop a pattern of land uses and circulation that will help conserve scarce or nonrenewable energy resources.

Goal EC-2. Utilize non-traditional energy sources such as co-generation, wind and solar to reduce dependence on traditional energy sources.

Goal EC-3. Promote energy efficiency in new development and in building design.

Policies: Energy Conservation

EC-P-1. Develop construction standards that promote energy conservation.

EC-P-2. Conserve public utilities.

EC-P-3. Conserve petroleum products.

EC-P-4. Encourage use of alternative energy sources in new commercial, industrial, and residential development.

Implementation: Energy Conservation

EC-I-1. Implement development standards which encourage energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.

EC-I-2. Implement construction standards which encourage energy conservation including window placement, and building eaves and roof overhangs.

EC-I-3. Enforce Title 24 energy requirements (Building Code, California Code of Regulations (CCR)) which define construction standards that encourage energy conservation.

EC-I-4. Develop a public education program to increase public participation in energy conservation.

EC-I-5. Encourage large energy users to use an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

EC-I-6. Cooperate with other agencies and jurisdictions to expand energy conservation programs.

EC-I-7. Investigate alternative energy sources including cogeneration, solar energy, and wind generation.

EC-I-8. Implement Transportation System Management (TSM) measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products through an efficient roadway and intersection system. The circulation pattern is designed to minimize trips required for shopping and daily errands.

EC-I-9. Develop alternative transportation systems, such as public transportation and bikeways, which reduce the need for automobile use and petroleum products.

8.3 SOIL

The primary concerns regarding soil erosion are soil loss and water quality loss due to erosion and sedimentation. The effect on water quality is discussed in Section 8.4 below. Soil loss is due primarily to development and land management practices that leave disturbed soil exposed to weather.

The majority of the soils in the study area were formed in alluvium, and are found on alluvial fans and terraces or stream terraces. Runoff is slow on these deep alluvium soils, and the hazard of erosion is "slight." The soils in the General Plan study area are described in Appendix B.

8.3.1 Soil Erosion Control and Safety Goals

Goal SC-1. Preserve and maintain Portola's soils to avoid pollution of the Feather River and its tributaries and loss of soil.

Policies: Soil Erosion Control and Safety

SC-P-1. Minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.

SC-P-2. Minimize risk from expansive soils.

Implementation: Soil Erosion Control and Safety

SC-I-1. Require site-specific research and ground surveys for proposed development projects. This

research should include a detailed inventory of soil conditions, and appropriate mitigation measures for avoiding or reducing erosion and risk from expansive soils. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

SC-I-2. Comply with Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soil types.

SC-I-3. Comply with the California Uniform Building Code (CUBC) Chapter 29, regulating excavation, foundations, and retaining walls; and Chapter 70 regulating grading activities, including drainage and erosion control.

SC-I-4. Require projects in areas that have highly expansive soils to undertake necessary studies and structural precautions as part of the project approval process. (Where prior soil studies on similarly-situated property have been conducted, the City may waive the requirement for field work in order to avoid imposing unnecessary application costs.)

SC-I-5. If expansive soil is present, it may be necessary to remove a portion of the clay, deepen footings, and/or moisture condition slab-on-grade and flatwork subgrade.

8.4 WATER QUALITY

Water quality refers to protection of both surface and groundwater resources from contamination. Protecting surface water quality involves minimizing sedimentation from soil erosion, and minimizing pollution of waterways and other water bodies from urban runoff. Protecting groundwater quality requires maintaining high water quality within the creek systems. Much of the policies in this element address the management of land development and use of potential contaminants.

Urbanization has both short-term and long-term impacts on water quality. Development results in increased impervious surfaces (streets, storm drains, rooftops, etc.) which decrease infiltration opportunities and may increase the volume and rate of runoff. Increased runoff velocity can result in increased channel erosion, which in turn can result in increased sediments into surface waters. Construction activity can also result in degradation of surface water quality.

Long-term impact to water quality may occur as a result of runoff from urbanization that enters the water courses. Urban runoff from streets, parking lots, driveways, and landscaped areas may include oil, grease, heavy metals, pesticides, herbicides, fertilizers, and sediments.

Urbanization can also impact groundwater recharge and quality. Groundwater is recharged by rainwater that reaches the subsurface saturated zone of the soil through percolation. Impervious surfaces reduce the percolation of water and the associated filtration processes beneficial to water quality. Pollutants found in urban runoff can leach into aquifers, impacting groundwater quality.

The major surface water within the study area is the Middle Fork Feather River. The river is fed by numerous creeks and drainages, most of which are unnamed. The most significant of these are Humbug Creek and Grizzly Creek. Humbug Creek empties into the river just west of Delleker. Charles Valley Creek feeds Humbug Creek as its course leaves Charles Valley. Grizzly Creek courses from Lake Davis and empties into the river east of Portola. Willow Creek, located outside the study area to the west, is a third major creek in the area feeding the river.

Best Management Practices (BMP's) are methods to control and abate discharges of material into water courses. BMP's are very important tools in protecting and maintaining water quality in the creeks, as well as the Middle Fork Feather River into which the creeks empty. Maintaining high water quality within the creek system will also help to keep contaminants out of the groundwater aquifer.

The California State Water Resources Control Board has jurisdiction over nine Regional Water Quality Control Boards, whose charge it is to identify and implement water quality objectives. Portola falls under the authority of the Central

Valley Regional Water Quality Control Board.

8.4.1 Water Quality Goals

Goal WQ-1. Maintain water quality in Portola surface and ground waters.

Policies: Water Quality

WQ-P-1. Minimize sedimentation and loss of topsoil from soil erosion.

WQ-P-2. Minimize pollution of waterways and other surface water bodies from urban runoff.

WC-P-3 Maintain a high level of water quality in the Feather River and tributary areas.

WC-P-4. Protect the quality of Portola's groundwater.

Implementation: Water Quality

WQ-I-1. Continue to enforce the Grading Ordinance standards for project construction and erosion control.

WQ-I-2. Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

WQ-I-3 Utilize cost-effective urban runoff controls, including Best Management Practices (BMP's), to limit urban pollutants from entering the water courses. Standard BMP's as required by the State Water Resources Control Board will be used.

WQ-I-4. Comply with the Regional Water Quality Control Board's regulations and standards to maintain and improve groundwater quality in Portola.

WQ-I-5. Where feasible, maintain the natural condition of waterways and floodplains, and protect watersheds to ensure adequate groundwater recharge and water quality.

WQ-I-6. Coordinate water quality and groundwater resource efforts with other appropriate agencies.

8.5 OPEN SPACE

Portola is currently a compact, rural community surrounded by open space and divided by the Feather River, a major open space feature. One of the most notable visual characteristics of the community is the sense of open space within and around the City. Protection of these features is fundamental to maintain the quality of life enjoyed by current residents. New development will inherently change some aspects of the open space resource, but through planning for the location and character of new development, the existing open space can be protected.

Access to open space is also very important. Recreation along the river and in the surrounding forest is a major attraction for residents and visitors. The General Plan serves to enhance the potential for access to the open space resources in and around the City.

In Portola, open space includes lands that serve the following purposes:

•Open space for the preservation of natural resources. Such areas are required for the preservation of plant and animal life, including habitat for fish and wildlife species (particularly rare, endangered or threatened plant and animal species), areas required for ecological and other scientific study purposes, rivers, streams, bank of rivers and streams, wetlands, and watershed lands. In Portola, the primary open space resource area is the Feather River and its major tributaries.

•Outdoor recreation. This includes areas of outstanding scenic, historic, and cultural value, areas particularly suited for park and recreation purposes including access to the river and streams, and areas that serve as links between major recreation and open space reserves, including utility easements, stream- and riverbanks, trails, and scenic highway corridors.

•Public health and safety. This refers to areas requiring special management or regulation due to hazardous or special conditions, such as earthquake fault zones, unstable soil areas, floodplains, watersheds, areas presenting high fire risks, and areas required for the protection and enhancement of air quality. In Portola, such areas include the flood plains and steep slope areas.

• Preservation of scenic areas and vistas. Settled in a narrow valley, Portola is surrounded by mountain peaks that visually define the community. Much of the surrounding mountain area is in public lands and is not likely to be developed in a manner that will affect the views from Portola. However, there are scenic areas within the General Plan study area and vicinity that have the potential to be developed in the future.

8.5.1 Open Space Goals

Goal OS-1. Maintain open space as a key feature of Portola.

Policies: Open Space

OS-P-1. Establish a comprehensive system of public and private open space, including interconnected open space corridors.

OS-P-2. Maximize the potential for open space, recreation, and visual experiences.

OS-P-3. Provide access to public open space areas.

Implementation: Open Space

OS-I-1. Where feasible, integrate creekside greenways with the City's open space system and encourage public access to creek corridors.

OS-I-2. Utilize the open space system to connect neighborhoods and define the edges of neighborhoods.

OS-I-3. Provide an interconnecting system of open space corridors that incorporate bicycle and pedestrian paths.

OS-I-4. Use the system of open space corridors to provide pedestrian and bike connections between schools, parks and other recreation, commercial uses, employment centers, the river and the federal lands surrounding the City.

OS-I-5. Require all new development to provide linkages to existing and planned open space that would logically be connected through the project.

OS-I-6. Provide opportunities for public education through the City's open space system, natural resource areas, and parks and recreation facilities.

OS-I-7. Cooperate with private open space preservation groups, private land owners and developers, and other public agencies, such as Plumas County and the U.S. Forest Service, to permanently set aside and protect open space areas that are significant to the environmental quality and identity of the City. Such open space areas include the Wild and Scenic Middle Fork Feather River and its major tributaries in the City, the Charles Creek Meadow, the meadow along Highway 70 at Grizzly Creek Road, and the meadow areas along Highway 70 downstream of the Portola pump station.

OS-I-8. Monitor groundwater resources. Areas where recharge potential is determined to be high should be considered for designation as open space.

8.6 MIDDLE FORK FEATHER RIVER

The Feather River is a special open space resource that significantly helps define the character of Portola. Not only is it a strong visual presence, the river provides unique opportunities for recreation in the center of the City. Few communities have the advantage of a beautiful river running through the center of town with very few structures abutting and screening out the river. The south side of the river abuts the Union Pacific Railroad and the land is held by the railroad. Therefore, the land is not accessible, but is relatively undisturbed by development.

The relative lack of development along portions of the north side of the river provide unparalleled opportunities to maintain the visual dominance of the river while also providing exceptional opportunities for public use and access. The Community Design Element provides guidelines for development of lands abutting the river in a manner that will take advantage of the views and provide access, but will not eliminate the view from the adjacent streets.

Protection and enhancement of this resource is a primary goal not only of this Element, but it underlies the fundamental concepts of this General Plan. That is, an attractive, compact community integrated with the natural environment.

The river was dredged and straightened through Portola about the middle of the 1900s. The effect is a somewhat deeper and straighten channel than would otherwise exist. Restoration of the river to a more natural configuration with naturally occurring bars, shallows, rock outcrops, and pools would enhance the visual quality and the fisheries quality of the river. The adjacent floodplain along the north side of the river is flanked by stands of pines and a riparian strand that extends along the foot of the steep bluff that provides a view from Sierra Street to the river.

The river and its immediate environment were designated a Wild and Scenic River by Congress in 1968. Thus the river is under the jurisdiction of the Plumas National Forest. Public Law 90-542 (October 2, 1968) declares that "...certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." The Act continues, "...the appropriate Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act. The standards specified in such guidelines shall have the object of (A) prohibiting new commercial or industrial uses other than commercial or industrial uses which are consistent with the purposes of the Act, and (B) the protection of the bank lands by means of acreage, frontage, and setback requirements on development."

In its current state the river is not easily accessible for recreation, either on the river or along its banks. Although it is one of the dominant visual features in the area, it is only occasionally actively used by residents or visitors. The vision in this General Plan is to make the river not only a significant visual resource, but a resource for community events, active recreation and wildlife conservation, as well.

8.6.1 Feather River Goals

Goal FR-1. Enhance and make use of the river for public access and recreation compatible with the qualities of the Wild and Scenic River designation.

Policies: Feather River Open Space

FR-P-1. The Feather River corridor through the City of Portola will accessible to the public where feasible and practical.

FR-P-2. The Feather River corridor through the City of Portola will provide recreation amenities for residents consistent with the natural resource.

FR-P-3. The Feather River corridor through the City of Portola will provide space for public events

such as craft fairs and music presentations consistent with the natural resource.

FR-P-4. The Feather River corridor through the City of Portola will include a bike trail along the river.

Implementation: Open Space

FR-I-1. The City will develop a master plan for the river corridor. The master plan will include a bike trail, handicap access to the river, low impact recreation facilities which may include a turf play field, and habitat conservation areas.

FR-I-2. Development along the river will be encouraged to provide public access and orientation to the river as described in the Community Design Element, Section 3.7.

FR-I-3. The bike trail along the river will be linked to an interconnecting system of open space corridors that incorporate bicycle and pedestrian paths where feasible.

FR-I-4. The City will actively seek funding for bike trails, public access and other improvements to the river corridor that are consistent with the Wild and Scenic River designation.

FR-I-5. Require all new development along the river to provide linkages to existing and planned open space that would logically be connected through the project.

FR-I-6. Coordinate with the school district to provide opportunities for public environmental education along the river corridor and provide environmental interpretive signs for the general public.

FR-I-7. Cooperate with private open space preservation groups, Plumas Corporation, and other public agencies, such as Plumas County and the U.S. Forest Service, to develop and implement a program for restoring and enhancing the quality of the river as a habitat for fish.

8.7 BIOLOGICAL RESOURCES

Biological resources within the study area are significant and important to the prosperity of Portola. These resources include:

- Wetlands
- General Vegetation Types and Habitats
- Special Status Wildlife
- Plumas National Forest Lands

Wetlands

There are a number of areas within the Portola General Plan study area which may contain jurisdictional wetlands. Waters of the United States include, but are not limited to, perennial and intermittent streams, lakes, ponds, and wetlands such as marshes, wet meadows, and seeps.

The U.S. Army Corps of Engineers (Corps) has jurisdiction within the GP Update study area under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Most work involving a discharge of dredged or fill material into waters of the United States requires prior Department of the Army authorization under the Clean Water Act.

A Preconstruction Notice and Nationwide Permit 26 (NWP 26) application to the Corps is required if proposing to fill any type of U.S. waters greater in size than 1/3 acre but less than 3.0 acres. Proposed fill of waters greater than 3.0 acres in size is not eligible for a NWP 26; this level of fill requires that an Individual Permit be obtained from the

Corps. NWP 26 applies only in isolated waters or above headwaters.

General Vegetation Types and Habitats

The California Vegetation System (CALVEG) identifies three basic vegetation types in the General Plan study area.

- Mixed Conifer-Fir (MF)
- Urban-Agriculture (UA)
- Barren (BA)

The general, broad-brush vegetation types are shown in Appendix B, General Vegetation Map. Ground surveys by qualified biologists must be conducted for site-specific land use decisions.

Special Status Species

Special status biological resources include California State or federal listed, candidate, or proposed rare, threatened, and endangered, and sensitive animals, plants, and natural communities that have been afforded special status by public agencies or major conservation organizations. Table 8-1 lists the special status species identified within the Portola General Plan Study Area.

TABLE 8-1
SPECIAL STATUS SPECIES

Key Number	Common Name	Scientific Name	Federal Status	State Status	CNPS Status
1	Sierra Valley Evening Primrose	Camissonia tanacetifolia SSP quadriperforata	None	None	4
2	Plumas Iversia	Ivesia sericoleuca	Species of Concern	None	1B
3	Lens-Pod Milk-Vetch	Astragulus lentiformis	Species of Concern	None	1B
4	Sticky Pyrrocoma	Pyrrocoma lucida	None	None	1B
5	Sheldon's Sedge	Carex sheldonii	None	None	2
6	Willow Flycatcher	Empidonax traillii	None	Endangered	
7	Northern Goshawk	Acipiter gentilis	Species of Concern	None	SC

Special Status Wildlife

There are two (2) animal species afforded special status which are known to occur, or to potentially occur, within or adjacent to the study area, as shown in Table 8-1 above. These species are also shown in Appendix B.

The Data Base search (CNDDB) reports one state endangered wildlife species, the Willow Flycatcher (*Empidonax traillii*). This special status bird nests in dense willow thickets, which are present near the Middle Fork Feather River and on the edges of wet meadows, ponds, and backwaters.

8.7.1 Biological Resources Goals

Goal BR-1. Protect and maintain all biological resources in the Portola area.

Policies: Biological Resources

BR-P-1. Emphasize existing natural areas bordering the Wild and Scenic Middle Fork Feather River.

BR-P-2. Encourage exchange of urban land uses for U.S. Forest Service lands within the City's Sphere of Influence.

BR-P-3. Protect special-status species and other species that are sensitive to human activities.

BR-P-4. Maintain healthy and well-managed habitat areas in conjunction with one another.

BR-P-5. Enhance the fish habitat potential of the Feather River in the City.

Implementation: Biological Resources

BR-I-1. Require site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

BR-I-2. Integrate, where feasible, passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas.

BR-I-3. Incorporate existing trees into development projects where preservation is feasible.

BR-I-4. Preserve and rehabilitate, if required, continuous riparian corridors and adjacent habitat along the creeks and Middle Fork Feather River.

BR-I-5. Require dedication of the 100-year floodplain or comparable mechanism to protect habitat and wildlife values in perpetuity.

BR-I-6. Require preservation of contiguous areas in excess of the 100-year floodplain as merited by special resources or circumstances. Special circumstances may include sensitive wildlife or vegetation, wetland habitat, slope or topographical considerations, recreational opportunities, and maintenance access requirements.

BR-I-7. Require cumulative mitigation plans for wetlands, where feasible.

BR-I-8. Limit the access of pedestrians and cyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

BR-I-9. Manage public lands with special status species to encourage propagation of the species, and discourage nonindigenous, invasive species.

BR-I-10. Work with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation measures, including mitigation banking.

BR-I-11. Work with the California Department of Fish and Game and other agencies to improve the fish habitat potential in the river by providing boulders, gravel banks, and other natural features that enhance the aeration of water and provide habitat for trout.

8.8 ARCHAEOLOGICAL, HISTORIC, AND CULTURAL RESOURCES

The Humbug Valley and surrounding area was home to the Miwok Indians and early settlers. Consequently, the area is rich in potential cultural sites. The specific locations of such sites are not addressed in the General Plan and do not directly affect the location or character of land use.

8.8.1 Archaeological, Historic, and Cultural Resources Goals

Goal AHCR-1. Protect archaeological, historic, and paleontological resources for their aesthetic, educational, and cultural values.

Policies: Archaeological, Historic, and Cultural Resources

AHCR-P-1. Create and preserve a record of the community.

Implementation: Archaeological, Historic, and Cultural Resources

AHCR-I-1. Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, or cultural resources and/or to determine the potential for discovery of additional cultural resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

AHCR-I-2. Require that sponsors of proposed development projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by California State law, are found, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action. Require a monitoring plan for the project to ensure that mitigation measures are implemented.

AHCR-I-3. When feasible, incorporate significant archaeological sites into open space areas.

AHCR-I-4. The City should compile an inventory of all historic sites throughout the City. The inventory will contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.

AHCR-I-5. The City should maintain an archive of historic information, including photographs, publications, oral histories, and other materials.

AHCR-I-6. The historic archives will be compiled according to location in the City and will be maintained in a safe environment to protect it over time.

AHCR-I-7. The City should develop policies and the means to make the information available to the public for viewing and research, as long as the City does not make public information that will allow the public to raid the site.

AHCR-I-8. Encourage the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.

AHCR-I-9. Amend the Zoning Ordinance to include a landmark Overlay District to be applied to designated landmarks and historic sites, and require preparation of conservation plans for designated landmarks and historic sites.

AHCR-I-10. All City permits for reconstruction, modification of existing buildings will require submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.

AHCR-I-11. Support the use of the Williams House, a site of historic interest, as a location for a local historic museum, visitor center, and community gathering place.

8.9 MINERAL RESOURCES

There are no known mineral resources within the study area. There is no Mineral Resource Zone Map available for the

study area. There are no active sites on or near the study area listed in the available information on gravel and other mineral resources in California.

8.9.1 Mineral Resources Goals

Goal MR-1. Protect and develop mineral resources in Portola, should they be discovered.

Goal MR-2. Balance the development of mineral resources, should they be discovered, with protection of the natural environment.

9. NOISE ELEMENT

Noise is generally defined as unwanted sound. A sound that may be disturbing to one person, may go unnoticed by another. Residents of a small, rural mountain community such as Portola, can reasonably expect that the overall level of sound will be low compared to more urban settings. Traffic levels will be less, sirens and other sounds of urban life will be nonexistent, or at least, more rare. The sounds of people, groups of children at play and of large gatherings will be relatively more localized and less frequent.

The relative lack of sound associated with human activity is valued in the community. The relative quiet of the neighborhoods in the forest and the opportunity to sit on the bank and listen to the river are among the attractions for many residents. Because many rural residential areas experience very low noise levels, residents may express concern about the loss of "peace and quiet" due to the introduction of even low noises. In very quiet environments, the introduction of virtually any change in local activities will cause increases in noise levels.

The purpose of the Noise Element is to define goals and policies for managing the effect of sound in the community. It is the overall goal of the Noise Element to protect the health and welfare of the community by promoting community development and activities that are compatible with noise level criteria.

Authority

The Noise Element is mandated by the California Government Code (65302 (f)). The statute requires:

> *" a Noise Element which identifies and appraises noise problems in the community. The Noise Element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services ..."*

The statute also requires that the Noise Element analyze and quantify projected noise levels for highways, primary streets, railroads, and stationary noise sources.

Relationship to Other Elements

- **Land Use Element.** Noise generated by the railroad and traffic along major roads is considered in establishing the pattern of planned land uses depicted on the General Plan Land Use Diagram. The intent is to minimize the exposure of community residents to excessive noise.
- **Circulation Element.** Traffic volumes are used to estimate the future noise levels along major streets.
- **Community Design Element.** The design of building elements that can generate or control noise, such as trash enclosures or sound walls are guided through standards in the Community Design Element.
- **Conservation and Open Space Element.** Noise exposure is considered to avoid excessive noise that would adversely affect enjoyment of recreational pursuits in designated open space. Open space also can be used to buffer sensitive land uses from noise sources.

Sensitive Land Uses

Noise sensitive land uses include residences of all types, nursing homes, day care centers, the Eastern Plumas Hospital, schools, parks, and open space near the City. In general, most portions of the Planning Area which contain noise-sensitive uses are relatively quiet.

The Uniform Building Code states that: "Interior community noise levels (CNEL) with windows closed, attributable to exterior sources, shall not exceed an annual CNEL or L_{dn} of 45 dB in any habitable room." This standard is to apply to all new hotels, motels, apartment houses, and dwellings other than single-family detached dwellings. State law also requires noise insulation of new multi-family dwellings constructed within the 60 dB CNEL noise exposure contours.

9.1 NOISE GOALS

The existing City is a relatively quiet mountain community with the notable exception of the railroad operations and the Highway 70 traffic noise. These sources are endemic to the community and cannot be easily avoided. The fundamental objective is to avoid creating new noise generating conditions that would degrade the existing community environment, or to place a sensitive land use where it would be adversely affected by an existing noise source.

Goal N-1. Protect City residents from the harmful and annoying effects of exposure to excessive noise.

Goal N-2. Protect the quality of life in the community and the tourism economy from noise generated by incompatible land uses.

Goal N-3. Accommodate additional tourism and visitors without creating new noise sources.

Goal N-4. Ensure that places of quiet remain near the urban areas of the City.

Goal N-5. Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.

Goal N-6. Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

9.2 MOBILE NOISE SOURCES

The primary noise sources in the Plan Area are traffic along Highway 70 and railroad operations. The noise contours are linear bands that depict noise levels at 60 dB $L_{dn.}$ The 60 dB L_{dn} contour represents the level for which any new residential development that is not shielded generally will require mitigation to comply with noise standards. These contours are generalized depictions of the conditions found in the community and should be used only as an indication of the need for additional study as described in the policies in the Noise Element.

Contours along roadways represent the predicted noise level and do not reflect the mitigating effects of noise barriers, structures, topography, or vegetation. Because intervening structures and topography may significantly affect noise exposure at a particular location, the noise contours should not be considered site specific, but rather are guides to determine when detailed acoustic analysis should be undertaken.

Noise from the railroad operations is generally buffered by distance from much of the community. The rail lines are separated from homes on the north side of the river by a distance of approximately 550 feet and from homes to the south by approximately 250 feet.

Other mobile noise sources include the train whistles and the occasional emergency helicopter flights to the Eastern Plumas Hospital. Each of these noise sources cannot be easily mitigated and cannot be eliminated.

Policies: Mobile Noise Sources

N-P-1 Allow the development of new noise-sensitive land uses only in areas where the existing or projected transportation generated noise level does not exceed the levels specified in Table 9-1. Noise sensitive uses include, but are not limited to residential, schools and hospitals. Noise mitigation measures may be required to reduce noise in outdoor activity areas and interior spaces to the levels specified in Table 9-1.

N-P-2. Require new roadway improvement projects to be mitigated so as to not exceed the noise levels specified in Table 9-1 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.

N-P-3. An acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be considered in the project design.

N-P-4. An acoustical analysis prepared pursuant to the Noise Element shall:

a. Be the responsibility of the applicant.

b. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

c. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.

d. Estimate existing and projected (20 years) noise levels in terms of Ldn or CNEL and/or the standards of Table 9-1 and/or 9-2, and compare those levels to the adopted policies of the Noise Element.

e. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.

f. Estimate noise exposure after the prescribed mitigation measures have been implemented.

g. Describe a post-project assessment program which could be used to monitor the effectiveness of the proposed mitigation measures.

TABLE 9-1
MAXIMUM ALLOWABLE NOISE EXPOSURE
TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas	Interior Spaces	
	Ldn/CNEL, dB	Ldn/CNEL, dB	Leq, dB2
Residential	60	45	
Transient Lodging	60	45	
Hospitals, Nursing Homes	60	45	
Theaters, Auditoriums, Music Halls			35
Churches, Meeting Halls	60		40
Office Buildings	65		45
Schools, Libraries, Museums			45
Playgrounds, Neighborhood Parks	70		

Table Footnotes (Table 9-1):

- Outdoor activity areas for residential development are considered to be backyard patios or decks of single family dwellings, and the patios or common areas where people generally congregate for multi-family developments.
- Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities.
- Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
- Determined for a typical worst-case hour during periods of use.
- Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the City.

Implementation: **Mobile Noise Sources**

N-I-1. Use the "normally acceptable" noise levels for new land uses as established in Table 9-1 (Noise and Land Use Compatibility) as review criteria.

N-I-2. New development in residential areas with an actual or projected exterior noise level of greater than 60 dB CNEL will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB CNEL. Site-specific measures could include the incorporation of building materials, building location, building orientation, setbacks, and/or walls or barriers.

N-I-3. Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Plumas County Sheriff's Department, and the California Highway Patrol.

N-I-4. In making a determination of impact under the California Environmental Quality Act (CEQA), consider an increase of four or more dB to be "significant" if the resulting noise level would exceed that described as normally acceptable in Table 9-1.

N-I-5. Conduct site-specific railroad noise studies for noise sensitive projects anticipated to be affected by railroad noise.

N-I-6. Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.

N-I-7. Evaluate new transportation projects, such a rail or public transit routes, using the standards contained in Table 9-1. However, noise from these projects may be allowed to exceed the standards contained in Table 9-1, if the City Council finds that there are special overriding circumstances.

N-I-8. Require an acoustical analysis where:

- Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table 9-1.
- Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table 9-1 at existing or planned noise-sensitive uses.

N-I-9. Require that all acoustical analyses utilize a consistent format and be prepared in accordance with Policy N-P-4.

N-I-10. Work in cooperation with Caltrans and the Union Pacific Railroad to maintain noise level standards for both new and existing projects in compliance with Table 9-1.

N-I-11. Work with the Railroad Museum Association to establish guidelines for use of whistles and horns in the daily activities of the museum.

9.3 STATIONARY NOISE SOURCES

The rural, mountain character of the City does not include many industrial, commercial or other activities that generate substantial noise. The primary current sources of noise include the City land fill, the Daw's Recycling facility on Taylor Street and the electric generators at the Sierra Pacific substation on Fourth Avenue. None of these is a major, consistent noise source.

Implementation of the General Plan will create new noise sources that may be significant. Among these are the new business park planned on the extension of Gulling Street, and additional commercial and business-professional land use along First Avenue and Taylor Street. In addition, the planned use of the River Park area, the existing community park, and Commercial Street for public events, such as craft fairs and music fairs has the potential to increase traffic and

crowd noise during short periods.

Policies: Stationary Noise Sources

N-P-5. Allow the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2. Noise mitigation may be required to meet Table 9-2 performance standards.

N-P-6. Require proposed fixed noise sources adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.

N-P-7. Where noise mitigation measures are required to achieve the standards of Tables 9-1 and 9-2, the emphasis of such measures should be placed upon site planning and project design. These measures may include, but are not limited to, building orientation, setbacks, landscaping and building construction practices. The use of noise barriers, such as sound walls, should be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

N-P-8. Regulate construction related noise to reduce impacts on adjacent uses.

N-P-9. Public events, such as carnivals, music festivals and other gatherings will be designed and managed to avoid creating a noise nuisance.

Implementation: Stationary Noise Sources

N-I-12. An acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be considered during project design.

N-I-13. The City shall use the noise Level Performance Standards contained in Table 9-2 for reviewing new development of noise-sensitive uses exposed to fixed noise sources.

N-I-14. The Municipal Code will be amended to add noise management standards for all public events.

TABLE 9-2
PERFORMANCE STANDARDS FOR NON-TRANSPORTATION NOISE SOURCES OR PROJECTS AFFECTED BY NON-TRANSPORTATION NOISE SOURCES

Noise level Descriptor	Daytime	Nighttime
	(7 a.m. to 10 p.m.)	(10 p.m. to 7 a.m.)
Hourly Leq, dB	60	45
Maximum Level, dB	60	45

Table Footnotes (Table 9-2):

- Each of the noise levels specified above should be lowered by five dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and area primary source of noise complaints.
- No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

10. AIR QUALITY

Good, clean air is a critical environmental resource and is essential to the quality of life in Portola. Not only does the quality of air affect the residents on a daily basis, the naturally high level of air quality, along with other amenities, attracts visitors and new business that sustain the economic viability of the community. As a small, mountain community, Portola inherently avoids many air quality problems that plague more populous, warmer environs. Yet, the rural mountain setting brings other air quality problems. There is a propensity for atmospheric inversion layer formation in mountain valleys leading to trapped air pollution, as well as the propensity for smoke to settle into low areas. These strong inversions and stagnant conditions are especially prevalent during the winter. The fundamental goal of the Air Quality Element is to protect the health and welfare of the community by promoting air quality standards in all aspects of development, transportation, and activity affected by this General Plan.

Authority

The Air Quality Element is an optional element of the General Plan under Section 65303 of the Government Code.

> *The general plan may include any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city.*

Relationship to Other General Plan Elements

This Element incorporates policies and concepts that are linked with the Land Use Element, Community Design Element, Circulation Element, Public Services and Facilities Element, and Safety Element.

10.1 PRIMARY SOURCES AND AMBIENT AIR QUALITY STANDARDS

The California and Federal Clean Air Acts establish air quality standards for several pollutants, primarily ozone, and particulate matter. These state and federal acts require jurisdictions in areas that violate these standards to prepare and implement plans to achieve the standards. Relevant California and federal Ambient Air Quality Standards are shown in Table 10-1.

Ozone

Ozone is a public health concern because it is a respiratory irritant that increases human susceptibility to respiratory infections. Ozone also causes substantial damage to natural vegetation, including the forest, and damages many materials by acting as a chemical oxidizing agent.

Ground-level ozone is the principal component of smog. Ozone is not directly emitted into the atmosphere, but is formed by the photochemical reaction of ozone precursors, reactive organic gases (ROG) and nitrogen oxides (NOx), in the presence of sunlight. Ozone levels are highest during late spring and early summer when precursor emissions are high and meteorological conditions are favorable for the complex photochemical reactions to occur. Generally, the majority of reactive organic gas and nitrogen oxide emissions come from motor vehicles.

Plumas County is currently considered to be unclassified for ozone. The current standards are not exceeded.

TABLE 10-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards	Federal Standards
Ozone	1- Hour	0.09 ppm	-

	8-Hour	0.070 pp	0.075 ppm
California standards for ozone are not to be exceeded. The ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.			

Particulate Matter (PM 10 and PM 2.5)

There are two size ranges of particulate matter (PM) for which state and federal health-based standards have been developed: PM 10 and PM 2.5. The numbers 10 and 2.5 refer to particle diameter in microns. PM 10 includes PM 2.5 but also includes particles larger than 2.5 microns, up to 10 microns.

Portola's PM 2.5 is mostly smoke particles from open burning, wildfires, wood stoves and fireplaces. Exhaust from motor vehicles, off-road equipment, trains and generators, as well as aerosol particles of natural and man-made origin, are also components. PM 10 includes dust, which in Portola's case is mostly windblown natural dust and dust from sanding roads in the winter. Some pollen and mold spores are also smaller than 10 microns.

TABLE 10-2
FEDERAL AND STATE PARTICULATE MATTER STANDARDS

Pollutant	Average Time	California Standards	Federal Standards
Fine Particulate Matter (PM 2.5	24-Hour	NA	35 µg/m^3
	Annual Average	12 µg/m^3	15.0 µg/m^3
Respirable Particulate Matter (PM10)	24-Hour	50 µg/m^3	150 µg/m^3
	Annual Average	20 µg/m^3	-

Fine particulate matter (PM 2.5) is the main pollutant of concern in Portola. PM 2.5 has been shown to contribute to asthma development, lung capacity reduction among children, breathing difficulty, eye irritation, exacerbation of cardiovascular problems, and even premature death. It is especially damaging for sensitive individuals such as children, elderly citizens, individuals with pre-existing health conditions, and people who are exercising outdoors. PM 2.5 is considered to be more dangerous than PM 10 because smaller particles travel deeper into the lungs and include some compounds with toxic properties.

Table 10-2 lists both the state and federal ambient air quality standards for PM10 and PM 2.5.

Greenhouse Gases (GHGs)

Global climate change has been clearly documented and is predicted to have substantial effects on the world we live in, not only in parts of the world that are far away, but here in California. Emissions of greenhouse gases (GHGs) must be curtailed if we hope to minimize the extent and impact of climate change. The majority of GHG emissions come from combustion of fossil fuels for energy and transportation. While renewable energy sources, cleaner fuels, and green technology will help to reduce GHG emissions, we also need significant changes in how we design and construct our "built environment" to meet our climate protection goals.

The State of California is leading the country in efforts to reduce greenhouse gases and the impacts on the global climate. The California legislature has passed and the Governor has signed the landmark greenhouse gas and climate change legislation, Assembly Bill 32 (AB 32), commonly known as the "California Global Warming Solutions Act of 2006," that will have substantial impacts on the City of Portola. In addition, the California Attorney General has initiated legal action against local governments for not addressing greenhouse gas and climate change issues in California Environmental Quality Act (CEQA) documents prepared for General Plan updates and development projects. The Air Quality Element provides a focal point for the City of Portola's General Plan efforts to reduce greenhouse gases and climate change impacts.

Under the current AB 32 "business as usual" scenario developed by the California Air Resources Board (ARB), statewide greenhouse gas emissions are increasing at a rate of approximately 1 percent per year as noted below. The following estimates represent the average statewide reductions needed from all emission sources (including all existing sources) to reduce greenhouse gas emissions back to 1990 levels.

- 1990: 427 Million Metric Tons of Carbon Dioxide Equivalent (MMTCO2e)
- 2008: 495 MMTCO2e (an average 14 percent statewide reduction needed to achieve 1990 base)
- 2020: 596 MMTCO2e "Business As Usual"(an overall 29 percent reduction needed to achieve 1990 base)

Senate Bill 375 was signed in September 2008 and establishes a process to develop regional targets for reducing projected year 2020 greenhouse gas emissions from passenger vehicles and light-duty trucks back to 1990 levels.

Greenhouse Gases and Their Sources

Carbon dioxide is the most dominant greenhouse gas; however a number of other gases also contribute significantly to climate change, including methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), hydrochlorofluorocarbons (HFCs) and perfluorocarbons (PFCs). Each gas has a different heat trapping capacity compared to CO2. For instance, methane is 21 times more effective at trapping heat in the atmosphere compared to the same mass of CO2, while some of the fluorocarbons have thousands of times more heat trapping capacity as CO2. To account for these differences whencomparing emissions for the different compounds, the emissions are generally expressed in terms of CO2 equivalents (CO2e). Thus, generic references to GHG emissions generally mean CO2 equivalent emissions.

From a land use standpoint, carbon dioxide, and methane are the most importantGHGs the City of Portola has the potential to significantly influence and will be the primary focus of general plan goals, policies, and reduction implementation strategies (CAPCOA) Model Policies for GHGs.

10.2 EXISTING CONDITIONS IN PORTOLA

The Northern Sierra Air Quality Management District includes Plumas County. The District's Board of Directors has approved staff's involvement in the development of city and county general plans to meet the strategic goal of keeping all jurisdictional areas out of federal nonattainment for all pollutants.

As of 2010, there are four air pollution monitors in Portola: One for near real-time PM 2.5 hourly data, one with filters for PM 2.5 24-hour data (used by EPA for attainment designations) and two for information on the types of particulate matter present in the ambient air.

The Portola Valley portion of Plumas County was designated non-attainment for the California PM 2.5 standard (12 micrograms per cubic meter of air, annual average) in 2003, based on monitors in Portola.

In September, 2006, EPA issued a revised ambient air quality standard for PM 2.5 (35 micrograms per cubic meter of air, 24-hour average). The value used to compare with the standard is the 98th percentile of samples for each year, averaged over the past 3 years. Thus, if between 100 and 150 valid samples are collected in 3 consecutive years, the third highest for each year are averaged. This is called the "design value."

Raw data for 2006-2008 place Portola above the federal standard. However, the NSAQMD was able to document, to EPA's satisfaction, that some of the high values during 2007 and 2008 were due to wildfires, so those were tossed out of the averaging as "exceptional events." After discarding the exceptional event values, Portola remained in attainment through 2008. Preliminary 2009 data indicate that the area is still in attainment, just barely.

Year	Design Value
2005	33 µg/m3
2006	30 µg/m3
2007	31 µg/m3
2008	34 µg/m3
2009	34 µg/m3 (preliminary data)

If the design value exceeds 35 µg/m3, a federal non-attainment designation will occur.

Portola is within federal standards for all other air pollutants. There used to be an ozone monitor in Quincy, which was removed in 2009. Data prior to 2009 placed Plumas County in the attainment range.

EPA has indicated that a violation of the federal PM 2.5 standard at the Portola site would probably result in the entire County, and possibly an even larger portion of northern California, being designated as a federal PM 2.5 non-attainment area.

The consequences of violating the federal PM 2.5 standard are serious. A federal non-attainment designation for Plumas County would necessitate the preparation of, and adherence to, a PM 2.5 control plan to reduce emissions. Specifically, all Reasonably Available Control Technologies and other strategies that could reduce emissions would have to be implemented. This would mean the imposition of new rules to govern industry, motor vehicles, residential heating appliances, new development projects, open burning, and other sources of PM 2.5, all at great expense and inconvenience to the public and to businesses. Additional requirements include emission offsets, conformity analyses for every transportation project and other federally funded project (in order to demonstrate that the actions would not make the problem worse), and possibly Transportation Control Measures and other measures.

After an area is designated as non-attainment, if all of the required rules and demonstrations are inadequate or not implemented quickly enough, federal sanctions kick in. For instance, federal highway money is withheld, emission offsets for new or modified pollution sources are raised, and ultimately EPA can step in and take over parts of the air pollution control program.

Finally, if an area is designated non-attainment and progress toward attainment does not proceed rapidly enough, the area has to "bump up" to a worse non-attainment classification, with even more stringent requirements, and when a non-attainment area finally reaches attainment, the rules cannot be relaxed.

Therefore, it is crucial that PM 2.5 emissions in the Portola area be reduced immediately, not only for the benefit of public health but also in order to avoid a federal non-attainment designation.

Consistency with other Elements

The General Plan is the gateway to transforming our communities into more efficient, low-carbon, sustainable, vital places for us, our families, and our neighbors to live, work, and play. The City of Portola General Plan contains 10 distinct standalone elements (Land Use, Housing, Community Design, Safety, Noise, Economic Development, Conservation, Circulation, Public Facilities, and Air Quality). However, it is important to remember that each of these elements weave together to create the comprehensive long-range plan for the City. Many policies already exist within these other elements which support the City's future goals of improving air quality within the City, region, and State.

Land Use Goals

LU-3 Reinforce strong urban design, quality development, and a compact City form.

LU-6 Reinforce land use and development patterns that encourage walking and the use of local public transit within the community.

LU-7 Complete in-fill development of the unimproved portions of the City.

Community Design

CD-1 Guide development of the community in a manner that will sustain the natural resources and amenities and will be economically sustainable over time.

Safety

WF-1 Protect against injury, loss of life, and damage to property and the environment due to wildland fire.

Conservation

EC-1 Develop a pattern of land uses and circulation that will help conserve scarce or nonrenewable energy resources.

EC-2 Utilize non-traditional energy sources such as co-generation, wind and solar to reduce dependence on traditional energy sources.

EC-3 Promote energy efficiency in new development and in building design.

Circulation

C-2 Extend the circulation network, including streets, bike and pedestrian paths, and transit routes to in-fill areas and new growth areas in a manner that is energy and cost efficient, safe, and minimizes impact on the natural environment.

C-4 Expand transportation alternatives within the City, including public transit, walking and bicycling.

Public Facilities

PF-4 Public improvements and facilities will be designed to enhance, rather than degrade, the natural environment in the city and surrounding area.

10.3 AIR QUALITY GOALS

New visitors, businesses and residents in the community will contribute to conditions that could ultimately result in nonattainment of federal or state air quality goals. Once air quality monitors record violations of the state or federal standard, an area is designated by either California or U.S. EPA as nonattainment for that pollutant.

Federal nonattainment designation requires air pollution control strategies to be implemented, targeting the air pollution sources that cause the greatest degradation of air quality to clean the air and stop exceedances of the standard. Being in nonattainment of an ambient air quality standard means higher rates of respiratory ailments and related health care costs, higher rates of premature deaths, and may require the implementation of control strategies to reduce the emissions of the pollutant. Being designated as a federal nonattainment area is generally more economically burdensome to an area than being designated nonattainment due to violations of a California State Air Quality Standard (CAAQS).

Because air pollution is typically a regional problem, the city must undertake feasible policy and implementation plans to minimize the existing air pollution events and avoid increased air pollution that would accompany economic and

population increases. These policies and implementation cover a wide range of common daily activities, such as burning slash outdoors and wood stoves, as well as transportation and land use planning that have a strong, but indirect, effect on air pollution.

Goal AQ-1. Improve Portola's air quality by:

a. Achieving and maintaining ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board;

b. Minimizing public exposure to toxic or hazardous air pollutants; and

c. Minimizing public exposure to pollutants that create a public nuisance, such as unpleasant odors.

G**oal AQ-2.** Integrate air quality planning with land use and transportation planning processes.

Goal AQ-3. Although the automobile is the primary form of transportation, the City of Portola should make a commitment to other modes of transportation.

Goal AQ-4. Reduce air emissions through energy conservation.

Policies: Air Quality-General

AQ-P-1. Cooperate with other agencies to develop a consistent and coordinated approach to reduction of air pollution and management of hazardous

AQ-P-2. Encourage energy efficient building designs.

AQ-P-3. New construction will be managed to minimize fugitive dust and construction vehicle emissions.

AQ-P-4. Woodburning devices shall meet current standards for controlling particulate air pollution.

AQ-P-5. Burning of any combustible material within the City Limits will be strictly controlled to minimize particulate air pollution.Alternatives to open burning of waste vegetation shall be encouraged.

Implementation: Air Quality-General

AQ-I-1. Work with the Northern Sierra Air Quality Management District (NSAQMD) to develop and adopt a City of Portola Air Quality Management Plan (AQMP).

- Appoint a local committee from the community and adopt a resolution to develop an Air Quality Management Plan (AQMP).
- Cooperate with the Northern Sierra Air Quality Management District (NSAQMD) to gather information on emissions sources specific to the City of Portola, developing consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts**.**
- Cooperate with the Northern Sierra Air Quality Management District (NSAQMD) and the California Air Resources Board to develop a local air-shed model, at the discretion and availability of resources of the California Air Resources Board.
- Cooperate with the Northern Sierra Air Quality Management District (NSAQMD) to develop a cost/benefits analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.

- Cooperate with the Northern Sierra Air Quality Management District (NSAQMD) to present technical studies to Portola residents and public officials, and request a resolution to adopt the Air Quality Management Plan (AQMP).

AQ-I-2. In accordance with CEQA, submit development proposals to the Northern Sierra Air Quality Management District (NSAQMD) for review and comment prior to decision.

AQ-I-3. Locate air pollution point sources, such as manufacturing and extracting facilities, in areas designated for industrial development and separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

AQ-I-4. Use best available control technology for stationary industrial sources of air pollution.

AQ-I-5. Cooperate with the Plumas County Environmental Health Department in identifying hazardous material users and in developing a hazardous materials management plan.

AQ-I-6. Establish buffer zones (e.g., setbacks, landscaping) within residential and other sensitive receptor site plans to separate those uses from highways, arterials, hazardous material locations and other sources of air pollution or odor.

AQ-I-7. Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible.

AQ-I-8. The project shall use energy efficient lighting (including controls) and process systems beyond Title 24 requirements where practicable (e.g., water heating, furnaces, boiler units, etc.)

AQ-I-9. The project shall use energy efficient, automated controls for air conditioning beyond Title 24 requirements where practicable.

AQ-I-10. Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winter winds.

AQ-I-11. Alternatives to open burning of vegetative material on the project site shall be used by the project applicant or contractor unless deemed infeasible by the Northern Sierra Air Quality Management District. Suitable alternatives include chipping, mulching, or conversion to biomass fuel.

AQ-I-12. Project development applicants shall be responsible for ensuring that all adequate just control measures are implemented in a timely manner during all phases of project development and construction.

AQ-I-13. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

AQ-I-14. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

AQ-I-15. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

AQ-I-16. All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

AQ-I-17. All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying County-approved non-toxic soil stabilizers (according to manufacturer's specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.

AQ-I-18. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

AQ-I-19. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to remove excessive accumulations of silt and/or mud which may have resulted from activities at the project site.

AQ-I-20. Prior to final occupancy, the applicant shall re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.

AQ-I-21. Acceptable materials that may be used for chemical soil stabilization include petroleum resins, asphaltic emulsions, acrylics, and adhesives which do not violate California Air Resources Board or Regional Water Quality Control Board Standards.

AQ-I-22. If serpentine rock or naturally occurring asbestos (NOA) is found in the project area, the State's Airborne Toxic Control Measures for NOA will apply.

AQ-I-23. During initial grading, earthmoving, or site preparation, a 100-foot paved (or palliative treated) apron shall be constructed, extending onto the project from the adjacent paved roads where vehicles and equipment egress.

AQ-I-24. Wheel washers shall be installed where project vehicles or equipment egress from unpaved areas onto paved streets or roads. Vehicle or equipment wheels shall be washed prior to each trip, if necessary, to control soil tracking onto roadways.

AQ-I-25. All residences built in a new subdivision or housing development shall be equipped with conventional heating devices with sufficient capacity to heat all areas of the building without reliance on woodburning heating devices.

AQ-I-26. All woodburning heating devices installed shall be EPA II certified or meet EPA standards applicable at the time of project approval.

AQ-I-27. Require existing older woodburning stoves to be retrofitted with devices meeting federal EPA standards at the time a residence is sold or a major alteration or addition is initiated.

AQ-I-28. Burning of any combustible material, including vegetative slash, requires a permit and written conditions from the Fire Chief, in accordance with City of Portola Ordinance 179, Section 2 (part), 1979.

Policies: Air Quality-Land Use

AQ-P-6. Develop a land use plan which will minimize daily travel and air pollution.

Implementation: Air Quality-Land Use

AQ-I-29. Encourage mixed-use and pedestrian-oriented development and circulation systems that promote use alternatives to the automobile for transportation, including bicycles and bus transit, along with carpooling.

AQ-I-30. Design land uses which locate daily employment, school, and shopping destinations near residential areas, where feasible.

AQ-I-31. Consider increased intensity of development along existing and proposed transit corridors.

Policies: Air Quality-Transportation

AQ-P-7. Develop transportation systems that minimize air pollution from automobile emissions.

AQ-P-8. Coordinate and integrate all forms of public transportation.

Implementation: Air Quality-Transportation

AQ-I-32. Develop a Transportation Systems Management (TSM) Ordinance which will reduce motor vehicle emissions through decreases in vehicle delay, average daily trips and vehicle miles traveled.

AQ-I-33. Maintain acceptable levels of service as specified in the Circulation Element.

AQ-I-34. In new subdivisions, require internal street design to include the installation of dedicated pedestrian/bicycle pathways connecting to adjacent residential and commercial areas as well as schools, parks and recreational areas.

AQ-I-35. Provide adequate pedestrian and bikeway facilities for present and future transportation needs throughout the city.

AQ-I-36. Locate public facilities in areas easily served by current and planned public transportation.