



City of **Ione**
General Plan Update



Background Report

August 2008



PMC[®]



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1.1 PURPOSE OF THE BACKGROUND REPORT

The purpose of this Background Report is to support the City of Lone's update to the General Plan. The City of Lone General Plan ("General Plan") was originally adopted in 1963 to guide the physical, social, and economic development within the City's Planning Area. The plan was subsequently updated in 1974 and 1982. Various elements have been updated since the 1982 update, including the General Plan Land Use Map in 1989 and 1992, the Circulation Element in 1991 and 2003, and the Housing Element in 2005. This Background Report presents background information (data, facts, and information on the existing conditions of the City and its environs) collected as part of the General Plan update process. It will serve as a resource for the General Plan and the associated Environmental Impact Report that will be prepared pursuant to the requirements of the California Environmental Quality Act. This document will also be used as a resource for future planning studies, environmental impact reports, or other documents.

1.2 PURPOSE OF THE GENERAL PLAN UPDATE

The Background Report effectively serves as a foundation on which Lone's General Plan update process proceeds. Mandated by state law, each city and county must adopt a general plan that addresses physical development in the community. The general plan is perhaps the single most important document a local government can adopt, serving as the guiding policy document. A general plan is often referred to as a "constitution" for decision-making by a local government. The general plan is comprehensive in its scope, identifying land use, circulation, environmental, economic, and even social goals and policies as they relate to local land use and development. A general plan is also central to the effective management of a community's physical and natural resources and provides a basis for local decision-making.

The City of Lone General Plan will be used to inform citizens, developers, agencies, interest groups, and others of the ground rules that will guide development-related decisions in the community. The General Plan will provide the long-term vision for the community and, through its implementation policies, how that vision may be achieved over time.

In order for a general plan to be effective, it must remain current. While state law does not specify rigid requirements or timing for updating a general plan (other than for the housing element), it does establish that the responsibility for determining whether a general plan is up to date and accurate rests with each jurisdiction. The City Council adopted the Lone General Plan in December 1982. Since that time, the City has experienced population growth, economic development, residential development, and other changes that should be addressed in the updated General Plan. Community interests and attitudes may also have changed since 1982. Additionally, planning, development, and environmental laws have changed since the General Plan was last adopted. The General Plan update will therefore address pertinent issues guiding planning, development, and environmental statutes as part of the City's General Plan.

1.3 FORMAT AND SCOPE OF THE BACKGROUND REPORT

The Background Report provides background data and information specific to all elements of the General Plan.

All references cited or used and persons consulted in the preparation of this document are listed in Chapter 9.0 of this Background Report. References to documents in the text are by author and date.

1.0 INTRODUCTION

Although the Background Report is intended to be a comprehensive resource, it does have limitations. Research conducted during General Plan preparation was limited in scope to that necessary to support the update process. For example, detailed technical analyses of flood control issues were not conducted nor part of the scope of work for this document. The data in this document may not prove sufficient to support future development projects, necessitating the need for more specific analyses. Additional and more authoritative information for a particular subject may be available. Before using the information in this document in the future, readers are cautioned to consult the City and other agencies. They may have developed, or be in the process of developing, more current and relevant information. Data included in this Background Report is time-specific and may decline in value over time. The City should consider the need to update pertinent information during any subsequent update of the General Plan or in conjunction with environmental review of major development projects.

This section provides a discussion of land use conditions and population information for the City of Lone Background Report, as well as a summary of the current land use conditions in and around the City of Lone.

2.1 BACKGROUND/EXISTING SETTING

The City of Lone is located in southwestern Amador County at the juncture of the Sierra Nevada foothills and the Central Valley. Lone is located approximately 30 miles southeast of Sacramento and 30 miles northeast of Stockton. Elevations in the city range from 258 above mean sea level (amsl) in the southwest of the city to approximately 600 feet amsl in the northeast. Both State Route (SR) 124 and SR 104 bisect the city. SR 104 aligns generally northwest to southeast and SR 124 aligns northeast to southwest from its juncture with SR 104. Sutter Creek also passes through the city from east to west.

Incorporated in 1953, Lone occupies approximately five square miles. According to the current General Plan, approximately 3,771 acres are located in the existing City limits and SOI including 2,920 acres in the city and 851 acres in the remaining part of the Sphere of Influence (City of Lone, 1982). The city core is largely built out with retail and commercial businesses. Residential uses surround the core. The special planning area that comprises a large portion of the western area of the city is still largely undeveloped. The 2000 Census indicated that Lone had a population of 7,219. Current population estimates (as of January 1, 2008) indicate that the population has grown to 7,416 (Department of Finance, 2008).

The proposed Planning Area boundary (the study area for the General Plan update) reflects the City's current Sphere of Influence (SOI) boundary and the existing city boundary (**Figure 2.0-1**) as well as lands beyond the SOI. The SOI was adopted in the mid 1980s and includes lands surrounding the existing city limits that could eventually be converted to urban uses and which the City can reasonably expect to serve. The Planning Area encompasses approximately 31,770 acres and extends as far west as the San Joaquin County Line.

The existing land use pattern is generally reflective of the land use designations in the City's current General Plan, with a mix of residential neighborhoods surrounding a downtown core and open space and industrial uses on the fringes of the Planning Area. The City can be categorized by several distinct features, neighborhoods or areas:

- *SR 104 and SR 124* - The highways divide the community along a north/south axis with junctures in downtown and north of the downtown.
- *Downtown/Main Street* - Comprises the commercial core of downtown Lone. Contains a variety of shops, restaurants, and government offices.
- *Mule Creek State Prison* - This state prison facility is located in the northwestern portion of the city.
- *California Department of Forestry (CDF) Fire Protection Training Academy* - The CDF facility is located in the northern portion of the Planning Area southeast of Mule Creek State Prison. The CDF facility is used to train staff from all over California.
- *Preston Youth Correctional Facility* - The Preston Youth Correctional Facility (formerly the Preston School of Industry) is neighbors the CDF Fire Protection Training Academy in the northern Portion of the Planning Area.

2.0 LAND USE

- *Large new developments* – Castle Oaks is located south of SR 104 in the southwestern portion of the city and includes residential and commercial uses as well as an 18-hole championship golf course. The proposed Wildflower project is also located south of SR 104 in the southeastern corner of the city immediately east of Howard Park.

Open space surrounds the Sphere of Influence, and several mining operations are located in the vicinity of the city. These include the Unimin Corporation mining operation to the south of the city at 800 Brickyard Road and the Owens-Illinois sand and limestone mining operation south of the city along SR 124.

Agricultural uses in and around Lone were historically limited to raising corn on the Preston farmlands. Farmland in the City's SOI is limited to native pasture (dry), irrigated pasture, small grains (wheat and barley), and field crops (such as sugar beets, alfalfa, safflower, beans, and corn) (City of Lone, 1982). Soils in the city and surrounding area do not possess characteristics which are favorable to agricultural purposes. The Lone General Plan did not indicate the presence of any prime farmlands or suitable soils located in this area to make agriculture a major land use.

EXISTING GENERAL PLAN

The original Lone General Plan was adopted by the City Council in 1963. The plan was subsequently updated in 1974 and 1982. The Land Use Element was modified in December 1989, and the Land Use Map was amended in June 1992. The Circulation Element was amended in June 2003 and the Housing Element was amended in May 2005. The current General Plan notes that "Aspects of life in Lone that make it a desirable place to live are its 'small town' rural atmosphere, its rich history, and the absence of crime, noise, and congestion that plague urban areas. These qualities should be preserved."

The City of Lone General Plan has 16 land use designations as listed below:

- Residential Suburban (RS)
- Residential Low Density (RL)
- Residential Medium Density (RM)
- Commercial Business District (C-CBD)
- General Commercial (C-G)
- Neighborhood and Highway Commercial (C-N)
- Light Industrial (I-L)
- Heavy Industrial (I-H)
- Special Planning (SP)
- Open Space (OS)
- Agricultural Transition (AT)

- Agricultural Mineral Resources (A/MR)
- Public Services (PS)
- Recreational (R)
- Designated Floodway (DF)
- Waste Disposal Facilities (WD)

Figure 2.0-2 shows the current land use designations within the City of Lone. Not all of the land use designations are currently being applied to the map. No General Plan land use designations have been identified for the Planning Area. Land uses within the Planning Area will be designated as part of the General Plan Update.

EXISTING ZONING

The Zoning Ordinance was first adopted in 1958 and has been modified several times since. The Zoning Ordinance is a primary tool for implementing the policies of the General Plan. The Zoning Ordinance establishes Zoning Districts based upon the General Plan land use designations. The City of Lone's Zoning Ordinance is Title 17 of the Lone Municipal Code. The Zoning Code has 16 different designations as listed below.

- R-1a One-family Dwelling Zone
- R-1b One-family Dwelling Zone
- R-1c One-family Dwelling Zone
- R-2 Limited Multiple-family Dwelling Zone
- R-3 Multiple-family Dwelling Zone
- R-4 High Density Multiple Family Dwelling Zone
- C-1 Light Commercial Zone
- C-2 Central Business District Commercial Zone
- C-3 Heavy Commercial Zone
- M-1 Limited Manufacturing Zone
- A Agricultural Zone
- D Architectural Design Zone
- MP Mobile Home Park Zone
- O-S Open Space Zone
- Architectural Heritage and Historic Preservation

2.0 LAND USE

- P-D Planned Development Zone

Figure 2.0-3 depicts current zoning within the City. Not all of the 16 zoning designations are currently being used. No zoning land use designations have been identified for the Planning Area. Zoning within the Planning Area will be determined based on the land use designations assigned.

2.2 REGULATORY FRAMEWORK

LOCAL

Amador Local Agency Formation Commission

The City of Ione is located within the jurisdiction of the Amador Local Agency Formation Commission (LAFCo). LAFCo coordinates logical and timely changes in local governmental boundaries (Government Code §56001); conducts special studies which review ways to reorganize, simplify, and streamline governmental structures (Government Code §56031); and prepares spheres of influence for each city and special district within the County (Government Code §56425). The Commission promotes provision of efficient and economical services while encouraging protection of agricultural and open space lands (Government Code §56001, §56300). Further efforts include discouraging urban sprawl and encouraging orderly formation and development of local agencies based upon local conditions and circumstances (Government Code §56301) (<http://www.co.amador.ca.us/LAFCO/>).

City of Ione Redevelopment Agency

In the mid-1990s, the City created a Redevelopment Agency (RDA) and named the City Council as the RDA Board of Directors. The redevelopment plan has been drafted but not adopted. The City will identifying funding in the next round of Notice of Funding Availability grants to complete the project. The funding will most likely be in the form of two CDBG-funded Technical Assistance (TA) grant applications.

City of Ione General Plan

The City of Ione General Plan identified two goals and associated policies relative to land use.

1.00 Goal: Provide for an effective distribution of all land uses in order to maintain efficient city operations.

Policy 1.1: Maintain densities on agricultural lands commensurate with the type of agricultural activity taking place.

Policy 1.2: Avoid any premature development of agricultural lands within the city.

Policy 1.3: Consider the agricultural lands within the sphere of influence as an extension of the open space network.

2.00 Goal: Preserve open space lands for the future use of community residents.

Policy 2.1 Require that a certain amount of open space or common area be set aside with all new subdivision developments.

- Policy 2.2 Retain adequate areas of open space adjacent to sewage treatment facilities for health and safety protection.
- Policy 2.3 Develop lands adjacent to Sutter Creek in a manner which minimizes disturbance of riparian vegetation, and the inherent qualities of the natural environment.
- Policy 2.4 Encourage the use of cluster development and Planned Unit Development in new housing development to minimize construction and public service costs and preserve open space.

FOR MORE INFORMATION

City of Ione. Ione 1982 General Plan.

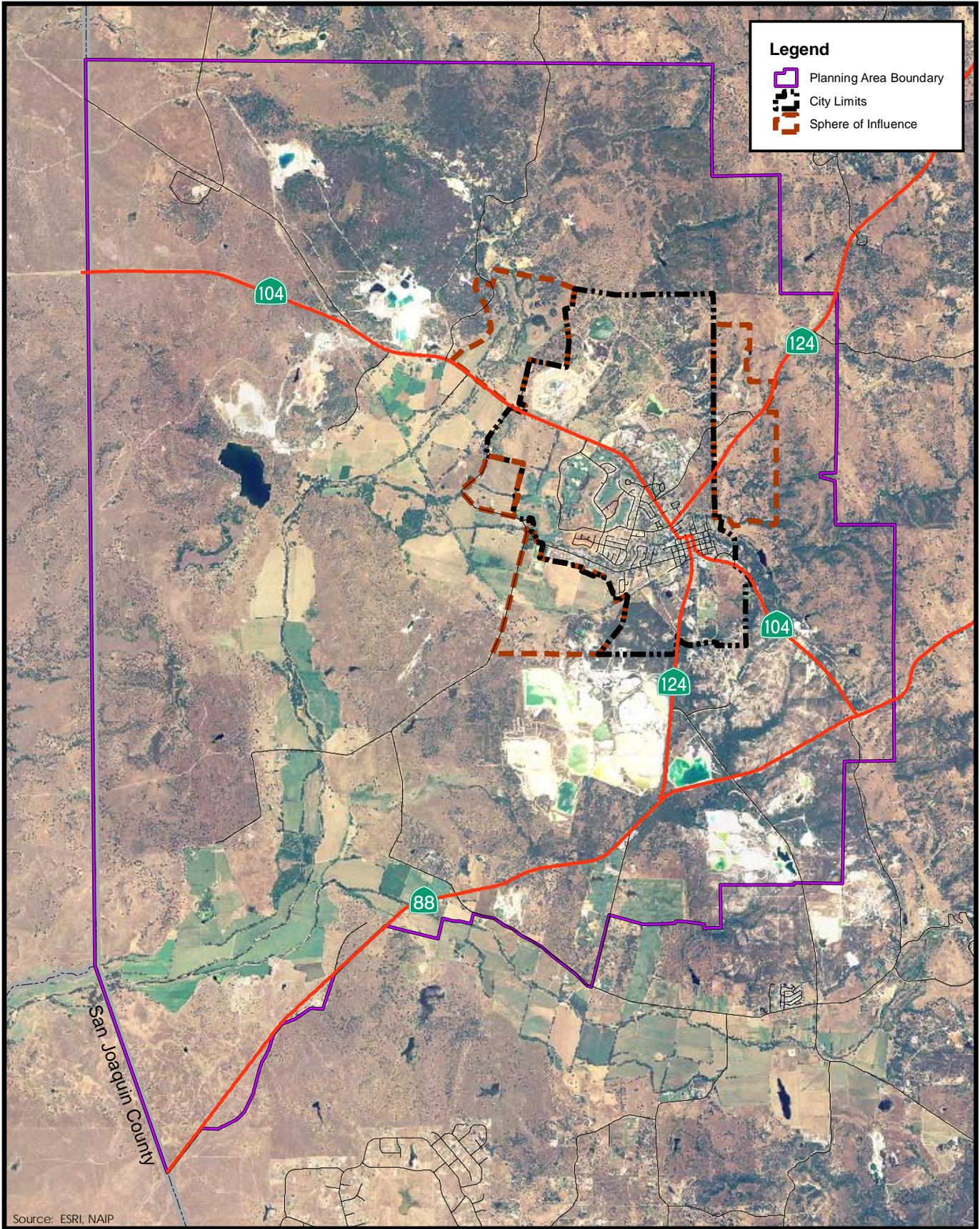
City of Ione. 1989. Land Use Element.

City of Ione. Ione website: <http://ione-ca.com/home/ione/>. Accessed May 2008.

City of Ione. 2003. Zoning Code <http://www.ione-ca.com/home/ione/zoning.htm>

Amador County Local Agency Formation Commission.
<http://www.ione-ca.com/home/ione/zoning.htm>. Accessed May 2008.

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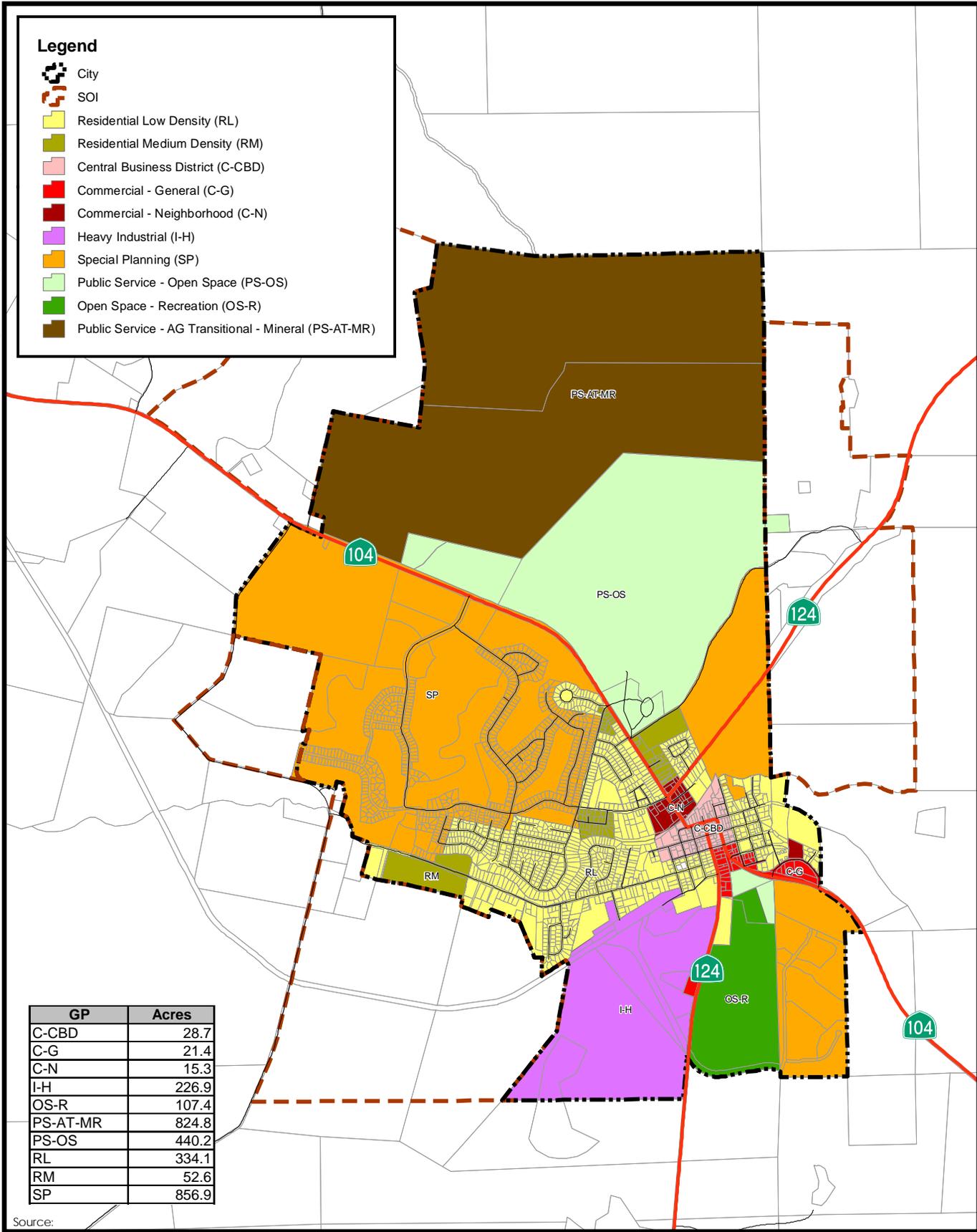
Legend

- Planning Area Boundary
- City Limits
- Sphere of Influence



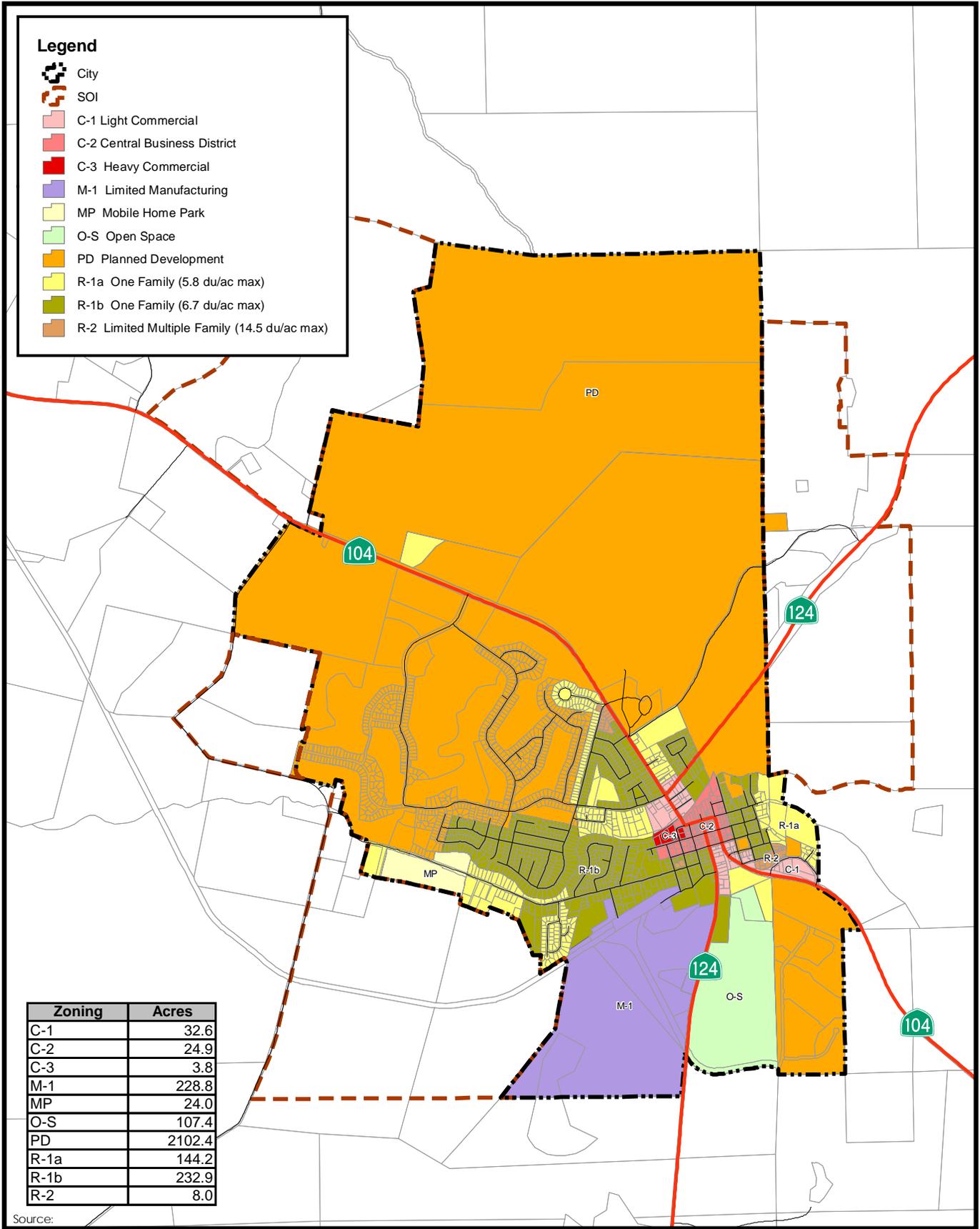
Figure 2.0-1
Aerial of Planning Area





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Figure 2.0-2
General Plan Land Use



Source:



Figure 2.0-3
Zoning Districts

This section provides a discussion of air quality conditions in the City of lone as well as the Mountain Counties Air Basin. This section also describes the federal, state, and local regulatory framework that applies to air quality in the City of lone and surrounding areas.

3.1 BACKGROUND/EXISTING SETTING

EXISTING SETTING AND CLIMATE

The City of lone is located in Amador County Air Pollution Control District, which is in the central portion of the Mountain Counties Air Basin (MCAB). This air basin covers the mountainous area of the central and northern Sierra Nevada mountains from Plumas County in the north to Mariposa County in the south. Elevation in the MCAB ranges from several hundred feet in the foothills to over 10,000 feet along the Sierra crest (California Air Resources Board, 2008a). The MCAB consists of the air pollution control districts of Amador, Calaveras, El Dorado, and Mariposa Northern Sierra (Nevada, Plumas, and Sierra counties), as well as a portion of the Placer County and Tuolumne air pollution control districts. These air districts work together to employ a regional approach to air pollution control.

Air quality in the area is a function of the criteria pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors that influence the intrusion of pollutants into the area from sources outside the immediate vicinity.

Air quality issues within the air basin are primarily due to migration of pollutants from the Bay Area and Central Valley (CARB, 2008b). The majority of the MCAB is located in the northern Sierra Nevada area with the western boundary of the basin extending into the Sacramento Valley. The topography in the MCAB is quite variable because of mountain peaks and valleys that differ substantially in elevation from approximately 100 to 10,000 feet.

The City of lone and surrounding areas of Amador County generally have warm, dry summers and mild winters. During the summer, in the western portion of the MCAB, temperatures that often exceed 100°F coupled with clear sky conditions are favorable for ozone formation. Temperatures of more than 100°F occur every year and temperatures drop below freezing during winter months. The seasonal rain totals range from less than 20 inches at lower elevations to more than 40 inches at higher elevations. In the lower foothills region surrounding the site, there is little snowfall, but at higher elevations, the amount of snowfall is fairly large.

Amador County experiences ozone as a major air quality problem because it is transported into the county from the San Joaquin Valley Air Basin. Internal combustion engines in mobile sources such as cars, light-duty and heavy-duty trucks, and off-road vehicles are a major source of ozone (O₃) precursors, which include nitrogen oxides (NO_x). Concentrations of ozone precursors and oxides of nitrogen are significant in the county. Concentrations of other monitored pollutants in Amador County generally meet the state and federal standards.

Based on ambient air quality measures taken at the Clinton Road monitoring station, Amador County exceeded the 1-hour state standard for O₃ 30 times from the year 2003 through 2007. Amador County exceeded the 1-hour federal standard for O₃ only once in the same time period, but exceeded the 8-hour federal standard of O₃ 12 times from 2003 through 2007 (California Air Resources Board, 2008b).

3.0 AIR QUALITY

AIR POLLUTANTS AND AMBIENT AIR QUALITY STANDARDS

Criteria Pollutants

Air quality within the MCAB is regulated by several jurisdictions including the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the Amador County Air Pollution Control District (ACAPCD). Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation. Although U.S. EPA regulations may not be superseded, both state and local regulations may be more stringent.

The six "criteria air pollutants" for which federal and state ambient standards have been established are ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM₁₀). Common sources of these pollutants include vehicle exhaust, woodburning stoves, heavy industry (e.g., metal refineries), and windblown dust.

Amador County is a designated nonattainment area for ozone under both state and federal standards. Amador County is in attainment for NO₂ and SO₂ but is unclassified for CO and PM₁₀ (CARB, 2008c). Amador County has implemented Rule 408 - Attainment Pollutant Air Quality Analysis (CARB, 2008d).

3.2 REGULATORY FRAMEWORK

The Amador Air District (AAD) is the local air quality agency. AAD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs and regulates agricultural burning. Other AAD responsibilities include monitoring air quality, preparing clean air plans, and responding to citizen air quality complaints.

Federal and state air quality standards have been established for all six ambient air pollutants, primarily to protect human health and welfare.

FEDERAL

Federal Clean Air Act

The Federal Clean Air Act (FCAA) required the U.S. EPA to establish National Ambient Air Quality Standards (NAAQS) and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The U.S. EPA has responsibility to review all SIPs to determine conformance to the mandates of the CAAA and the amendments thereof, and to determine if implementation will achieve air quality goals. If the U.S. EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement

the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

STATE

California Clean Air Act

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for O₃, CO, SO₂, and NO₂ by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts), establishing CAAQS (which in many cases are more stringent than the NAAQS), and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year and the type of vehicle, fuel, and engine used.

The State of California has been studying the impacts of climate change since 1988, when AB 4420 was approved. This legislation directed the California Energy Commission, in consultation with the Air Resources Board and other agencies, to study the implications of global warming on California's environment, economy, and water supply. The Energy Commission was also directed to prepare and maintain the state's inventory of greenhouse gas (GHG) emissions. That bill directed CARB to adopt regulations to achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles. CARB staff's proposal implementing these regulations was approved by the California Air Resources Board in September 2004. With implementation, the average reduction of greenhouse gases from new California cars and light trucks will be about 22 percent in 2012 and about 30 percent in 2016, compared to today's vehicles (<http://www.climatechange.ca.gov/>).

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The secretary will also submit biannual reports to the governor and state legislature describing (1) progress made toward reaching the emission targets; (2) impacts of global

3.0 AIR QUALITY

warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Act Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Senate Bill 1368

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a greenhouse gas emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

Assembly Bill 1493

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. AB 1493 declared that global warming was a matter of increasing concern for public health and the environment in the state, citing risks that California faces from climate change, including reduction in the state's water supply, increased air pollution creation by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices.

LOCAL

Amador County Air Pollution Control District

The Amador County Air Pollution Control District (ACAPCD) is the agency primarily responsible for compliance with NAAQS and CAAQS. ACAPCD works to ensure that air quality conditions are

maintained in Amador County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. ACAPCD has not yet adopted a clean air plan to achieve compliance with the California State Implementation Plan. Each district must adopt one by 2010 and it is ACAPCD's intention to have one in place in keeping with this deadline (Harris, 2008).

City of Lone General Plan

The City of Lone General Plan has no specific air quality policies. However, the EIR for the 1982 General Plan identified as mitigation that the City would "Maintain air quality at or above standards of the Federal Clean Air Act of 1970 and the California Air Resources Board Act of 1976."

FOR MORE INFORMATION

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4.0 BIOLOGICAL RESOURCES

This section provides a discussion of biological resources with the potential to occur in the Planning Area. Wildlife and plant species are identified as well as habitat types known to occur within the area.

4.1 BACKGROUND/EXISTING SETTING

VEGETATION TYPES

lone is located at the juncture of two major California vegetation zones: the Lower Sonoran Zone and the Upper Sonoran Zone (City of lone, 1982). The Planning Area includes approximately 10 different vegetation types as shown in **Figure 4.0-1**. **Table 4.0-1** includes a summary of the vegetation types, their acreages, and percentage of the Planning Area.

TABLE 4.0-1
VEGETATION TYPES WITHIN THE PLANNING AREA

Vegetation Type	Acres	Percentage of Planning Area
Annual Grass	6,968	21.9
Cropland	1,798	5.7
Chamise-Red Shank Chaparral	711	2.2
Mixed Chaparral	2,383	7.5
Montane Riparian	141	> 1%
Blue Oak Woodland	4,680	14.8
Valley Oak Woodland	215	1.0
Montane Hardwood	1,819	5.7
Blue-Oak Foothill Pine	854	2.7
Ponderosa Pine	4	> 1%
Barren	1,523	4.8
Lacustrine (lake)	271	1.0
Urban	1,072	3.4
No Data	9,251	29.2
Total	31,690*	100%

Source: USFS, 2007.

Note: Total acreage for Vegetation Map Planning Area differs from Planning Area total in Land Use section of approximately 31,770 acres. This is because the County Line identified in USFS data differs slightly from the County Line identified in preparation of the map used to calculate the Planning Area.

WILDLIFE

According to the California Natural Diversity Database (CNDDB) and the U.S. Fish and Wildlife Service (USFWS), 37 special-status species have the potential to occur within Amador County (**Table 4.0-2**). Of these, five have been recorded within the lone, California, quadrangle.

4.0 BIOLOGICAL RESOURCES

**TABLE 4.0-2
SPECIAL-STATUS SPECIES OF AMADOR COUNTY**

Scientific Name	Common Name	Status		
		Federal	California	CDFG/CNPS
Plants				
<i>Arctostaphylos myrtifolia</i>	lone manzanita*	T	None	1B
<i>Calochortus clavatus</i> var. <i>avivus</i>	Pleasant Valley mariposa lily	SC	None	1B
<i>Chlorogalum glandiflorum</i>	Red Hills soaproot	SC	None	1B
<i>Erigonum apricum</i> ar. <i>Apricum</i>	lone buckwheat*	E	E	1B
<i>Erigonum apricum</i> var. <i>parostratum</i>	Irish Hill buckwheat	E	None	1B
<i>Helianthemum suffrutescens</i>	Bisbee Peak rush-rose*	None	None	3
<i>Horkelia parryi</i>	Parry's horkelia*	SC	None	1B
<i>Navarretia myersii</i> aap. <i>Myersii</i>	Pincushion navareitta	None	None	1B
<i>Sphenopholis obtusata</i>	Prairie wedge grass	None	T	2
Fish				
<i>Hypomesus transpacificus</i>	Delta smelt	T	None	
<i>Oncorhynchus mykiss</i>	Central Valley steelhead**	T	None	SC
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	T	None	SC
Invertebrates				
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle*	T	None	
Amphibians				
<i>Ambystoma californiense</i>	California tiger salamander	T	None	SC
<i>Rana aurora draytonii</i>	California red-legged frog	T	None	SC
<i>Rana mucosa</i>	Mountain yellow-legged frog	SC	None	SC
Reptiles				
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	SC	None	SC
<i>Clemmys marmorata pallida</i>	Southwestern pond turtle	SC	None	SC
<i>Phrynosoma coronatum frontale</i>	California horned lizard	SC	None	SC
Birds				
<i>Agelaius tricolor</i>	Tricolored blackbird***	SC	None	SC
<i>Amphispiza belli belli</i>	Bell's sage sparrow***	SC	None	SC
<i>Athene cunicularia hypugaea</i>	Western burrowing owl***	SC	None	SC
<i>Buteo regalis</i>	Ferruginous hawk***	SC	None	SC
<i>Elanus leucurus</i>	White-tailed kite***	SC	None	SC

4.0 BIOLOGICAL RESOURCES

Scientific Name	Common Name	Status		
		Federal	California	CDFG/CNPS
<i>Falco mexicanus</i>	Prairie falcon	None	None	SC
<i>Haliaeetus leucocephalus</i>	Bald eagle	T	E	SC
<i>Lanius ludovicianus</i>	Loggerhead shrike***	SC	None	SC
<i>Toxostoma redivivum</i>	California thrasher	SC	None	
Mammals				
<i>Corynorhinus townsendii townsendii</i>	Pacific Western big-eared bat	SC	None	SC
<i>Euderma maculatum</i>	Spotted bat	SC	None	
<i>Eumops perotis californicus</i>	Greater Western mastiff-bat	SC	None	
<i>Gulo gulo leteus</i>	California wolverine	SC	T	
<i>Martes pennanti pacifica</i>	Pacific fisher	SC	None	SC
<i>Myotis ciliolabrum</i>	Small-footed myotis bat	SC	None	
<i>Myotis evotis</i>	Long-eared myotis bat	SC	None	
<i>Myotis thysanodes</i>	Fringed myotis bat	SC	None	
<i>Myotis volans</i>	Long-legged myotis bat	SC	None	
<i>Myotis ymanensis</i>	Yuma myotis bat	SC	None	SC
<i>Sylvilagus bachmani riparius</i>	Riparian brush rabbit	E	E	

Source: ECORP, 2005a.

E = Endangered T = Threatened SC = Species of Concern P = Proposed C = Candidate

* = recorded in lone, California, quadrangle

** = under the jurisdiction of the National Marine Fisheries Service

*** = Migratory Nongame Birds of Management Concern (Fish and Wildlife Service designation)

CNPS Listings

List 1b plants are rare, threatened, or endangered in California and elsewhere

List 2 plants rare, threatened, or endangered in California, but more common elsewhere

List 3 plants about which more information is needed - a review list

List 4 plants of limited distribution - a watch list

lone manzanita (*Arctostaphylos myrtifolia*), lone buckwheat (*Erigonum apricum* var. *apricum*), Bisbee Peak rush rose (*Helianthemum suffrutescens*), and Parry's horkelia (*Horkelia parryi*) have all been identified in the lone, California, quadrangle. lone manzanita (federally threatened), Bisbee Peak rush-rose (CNPS List 3), and Parry's horkelia (federal species of concern) have been found within the Planning Area. lone buckwheat and Irish Hill buckwheat (*Erigonum apricum* var. *prostratum*), also know to occur in Amador County, are both federally proposed endangered species and are listed as endangered by the state of California. Of these species, the California Native Plant Society (CNPS) has deemed lone manzanita, lone buckwheat, Irish Hill buckwheat, and Parry's horkelia as rare or endangered in California and elsewhere (List 1B). Bisbee Peak rush-rose is a CNPS List 3 species. More information is needed to determine whether protection of this species is warranted .

Pleasant Valley ariopos lily (*Calochortus clavatus* var. *avius*), Red Hills soaproot (*Chlorogalum landiflorum*), pincushion navarretia (*Navarretia myersii* aap. *Myersii*), and prairie wedge grass (*Sphenopholis obtusata*) have been found in the Planning Area. Pleasant Valley mariposa lily

4.0 BIOLOGICAL RESOURCES

and Red Hills soaproot are CNPS List 1B species and are both federal species of concern, while bearing no state designation. Pincushion navarretia is a List 1B species but is neither federally nor state-listed. The CNPS regards prairie wedge grass as a rare or endangered species in California, but more common elsewhere (List 2). Prairie wedge grass is not recognized federally or by the state.

Fish: Delta smelt (*Hypomesus transpacificus*), Central Valley steelhead (*Oncorhynchus mykiss*), and Sacramento splittail (*Pogonichthys macrolepidotus*) are all listed as federally threatened species. Delta smelt is state-listed as well, while Central Valley steelhead and Sacramento splittail are considered state species of concern. All three species are protected under federal law per the Federal Endangered Species Act. The CNDDDB has no records of these species within the 9 quadrangle search of lone. However, the USFWS has identified these species within their quadrangles. Therefore, Dry Creek, Mule Creek, and Sutter Creek may potentially provide habitat for these species within the Planning Area.

Invertebrates: The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a special-status invertebrate species that has been recorded in the lone, California, quadrangle. Valley elderberry longhorn beetles (VELB), which are federally listed as threatened, are associated with elderberry (*Sambucus sp.*) shrubs within riparian and other woodland habitats in the Central Valley and foothills.

The seasonal wetlands in the planning area could constitute potential habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) and/or the vernal pool tadpole shrimp (*Lepidurus packardii*). Vernal pool fairy shrimp are listed as threatened under the Federal Endangered Species Act but currently have no state designation. These species are known to occur in the Planning Area.

Amphibians: The California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana aurora draytonii*), and mountain yellow-legged frog (*Rana mucosa*) are all special-status species that have potential to occur in Amador County. The California tiger salamander was listed as threatened under the Federal Endangered Species Act on August 10, 2004, while the California red-legged frog was federally listed as threatened on June 24, 1996. The mountain yellow-legged frog is a federal species of concern. All three species are recognized by the California Department of Fish and Game (CDFG) as a species of concern, but none of the species are state-listed. The above-listed species have not been documented by the California Natural Diversity Database as occurring in the lone quadrangle.

Reptiles: The northwestern pond turtle (*Clemmys marmorata marmorata*), the southwestern pond turtle (*Clemmys marmorata pallida*), and the California horned lizard (*Phrynosoma coronatum frontale*) are identified in Amador County as potentially occurring special-status species. These species are considered federal and CDFG species of special concern, although they are not listed pursuant to either the California or Federal Endangered Species Acts. Pond turtles typically occur in perennial aquatic systems such as marshes, ponds, slow-moving streams, creeks, and ditches. The California horned lizard typically occurs in chaparral areas. Chamise-Red Shank Chaparral and Mixed Chaparral occur within the Planning Area.

Birds: The tricolored blackbird (*Agelaius tricolor*), Bell's sage sparrow (*Amphispiza belli belli*), western burrowing owl (*Athene cunicularia hypugaea*), ferruginous hawk (*buteo regalis*), white-tailed kite (*Elanus leucurus*), loggerhead shrike (*Lanius ludovicianus*), California thrasher (*Toxostoma redivivum*), and prairie falcon (*Falco mexicanus*) are considered potentially nesting species within the Planning Area. These species are considered species of concern by the federal government and the CDFG with the exception of the prairie falcon, which is not recognized federally, and the California thrasher, which is not recognized by the state. In

addition, the bald eagle is federally listed as threatened and state-listed as endangered and potentially occurs within the Planning Area.

Tricolored blackbirds nest within marsh, riparian thickets, or thorny scrub vegetation communities typically near grasslands, meadows, pastures, or other open areas for foraging. Bell's sage sparrows and California thrashers are chaparral-specific species, and western burrowing owls, ferruginous hawks, white-tailed kites, and loggerhead shrikes are associated with grasslands. Tricolored blackbirds may potentially occur in the Planning Area.

Prairie falcons, ferruginous hawks, white-tailed kites, and bald eagles are all tree-nesting raptors. All raptors (birds of prey) and their nests are protected pursuant to California Fish and Game Code Section 3503.5 and the Federal Migratory Bird Treaty Act. Prairie falcons, ferruginous hawks, white-tailed kites, and bald eagles may potentially occur in the Planning Area.

Mammals: The California wolverine (*Gulo gulo leteus*) and Pacific fisher (*Martes pennanti pacifica*) are both federal species of concern. The California wolverine is additionally a state-listed threatened species and the Pacific fisher is a species of concern recognized by the CDFG. These two species are found in high elevation alpine and coniferous forests, unlike terrain in the Planning Area which includes grassland, woodland, and chaparral. Therefore occurrences of these species are not expected in the Planning Area.

Riparian brush rabbits (*Sylvilagus bachmani riparius*) are classified as endangered by both the state and federal government and are therefore protected pursuant to both the Federal and California Endangered Species Acts. This species is found in areas of dense riparian shrub where there are mats of low-growing vines and scrubby trees such as exist along Dry Creek, Mule Creek and Sutter Creek.

The Planning Area provides foraging habitat for a variety of special-status bats that are known to occur in this region. These are Pacific Western big-eared bat (*Corynorhinus townsendii townsendii*), spotted bat (*Euderma maculatum*), greater Western mastiff-bat (*Eumops perotis californicus*), small-footed myotis (*myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*myotis volans*), and yuma myotis (*Myotis yumanensis*). None of these species are listed as protected pursuant to the California or Federal Endangered Species Acts. However, these species are considered CDFG species of special concern, Forest Service sensitive species, and/or Bureau of Land Management sensitive species.

Seasonal wetlands and jurisdictional waters of the U.S. are known to exist in the Planning Area (ECORP, 2005a). Seasonal wetlands experience varying levels of inundation/saturation and are typically dominated by native annual plants that have become adapted to the unique hydrologic regime. Jurisdictional waters of the U.S. mapped on the project site include seasonal wetlands as well as seasonal wetland swales.

The City of Lone does not currently have, or participate in, a Habitat Conservation Plan.

4.2 REGULATORY FRAMEWORK

FEDERAL

Federal Endangered Species Act

Provisions of the Federal Endangered Species Act (FESA), as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take.

4.0 BIOLOGICAL RESOURCES

“Take” under FESA includes activities such as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The USFWS regulations define harm to include some types of “significant habitat modification or degradation.” The U.S. Supreme Court ruled on June 29, 1995, that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” For projects with a federal nexus, Section 7 of the FESA requires that federal agencies, in consultation with USFWS or National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service), use their authorities to further the purpose of FESA and to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Section 10(a)(1)(B) allows non-federal entities to obtain permits for incidental taking of threatened or endangered species through consultation with USFWS or NOAA Fisheries Service.

Clean Water Act, Section 404

The objective of the Clean Water Act (CWA 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. Discharge of fill material into “waters of the U.S.” including wetlands, is regulated by the U.S. Army Corps of Engineers (ACOE) under Section 404 of the federal CWA (33 USC 1251-1376). ACOE regulations implementing Section 404 define “waters of the U.S.” to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3; 40 CFR 230.3). In addition to verifying wetlands for potential jurisdiction, ACOE is responsible for the issuance of permits for projects that propose filling of wetlands. Any permanent loss of a jurisdictional wetland as a result of project construction activities is considered a significant impact.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the Fish and Game Code (FGC).

All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC], § 703 et seq.) and California statute (FGC § 3503.5). The golden eagle and bald eagle are also afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC, § 669 et seq.).

Executive Order 13112 - Invasive Species

Executive Order 13112 - Invasive Species directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, USFWS and USACOE issue permits and are responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Game has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code 2070). CDFG maintains a list of "candidate species" which are species that CDFG formally notices as being under review for addition to the list of endangered or threatened species. CDFG also maintains lists of "species of special concern" which serves as species "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study.

California Department of Fish and Game

Fully Protected Species (Sections 3500 to 5500 of the California Fish and Game Code)

Sections 3500 to 5500 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFG cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Streambed Alteration Agreement (Sections 1600-1607 of the California Fish and Game Code)

State and local public agencies are subject to Section 1602 of the California Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the California Air Resources Control Board. Under Section 1602, a discretionary Streambed Alteration Agreement permit from the CDFG (Region 2 for the proposed project) must be issued by the CDFG to the project developer prior to the initiation of construction activities within lands under CDFG jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

Native Plant Protection Act

The Native Plant Protection Act (California Fish and Game Code Section 1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by CDFG). An exception to this prohibition in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFG and give that state agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed (Fish and Game Code, § 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way"). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

4.0 BIOLOGICAL RESOURCES

Birds of Prey

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

FOR MORE INFORMATION

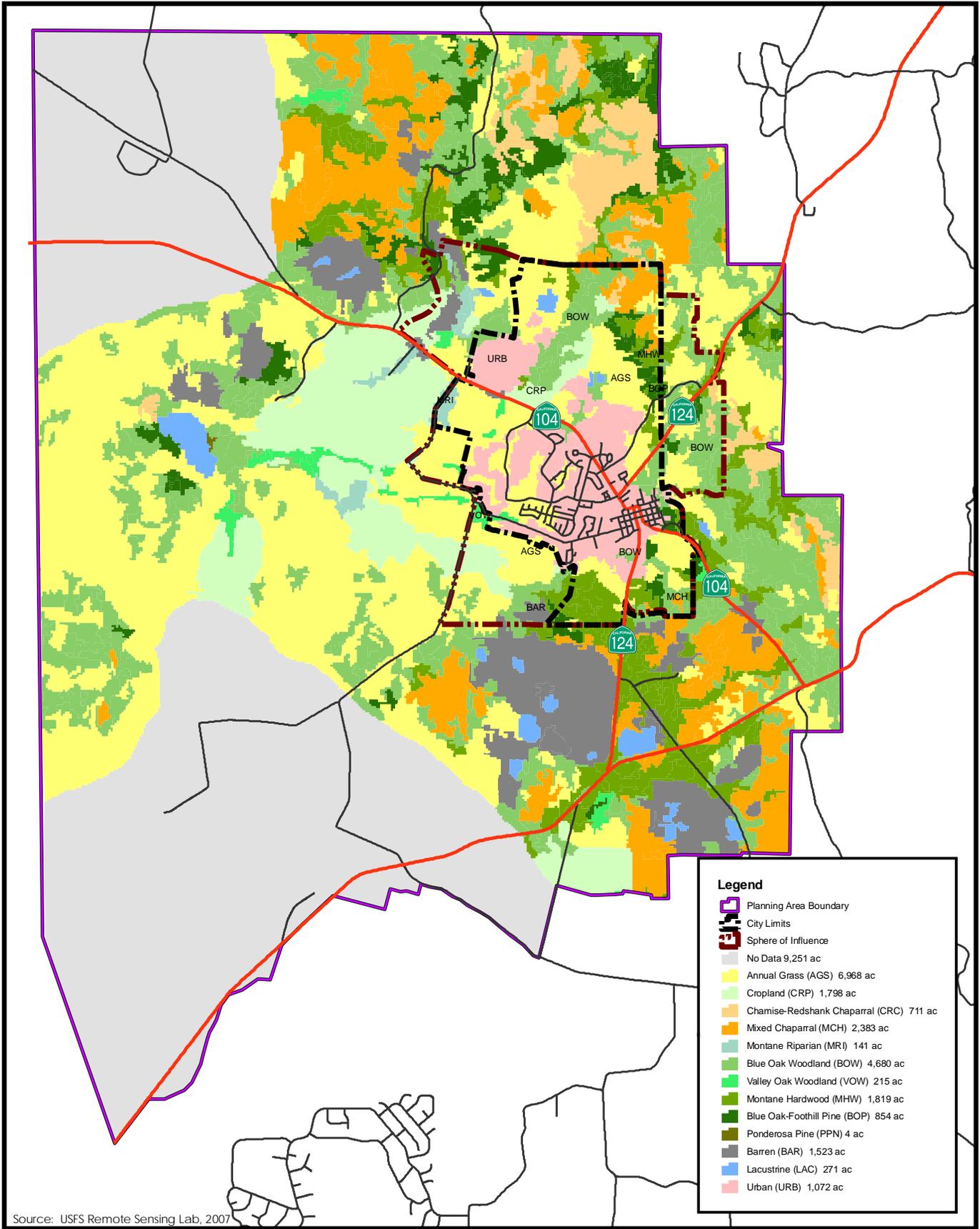
City of Ione. 1982. City of Ione General Plan & Environmental Impact Report.

ECORP, Letter report to Warren Hughes RE: Gold Village Project Site; Special-Status Species Assessment (superseding the April 8, 2005, submittal). February 7, 2006.

ECORP, Letter report to Warren Hughes RE: Ione-10 Project Site; Special-Status Species Assessment. April 8, 2005a.

ECORP. Rare Plant Survey Results for Gallelli & Sons Subdivision, Amador County, California. August 31, 2005b.

United States Forestry Service (USFS), 2007. Remote Sensing Lab (Figure 4.0-1).



Source: USFS Remote Sensing Lab, 2007



Figure 4.0-1
Vegetation Map

This section provides a discussion of cultural resources for the City of Lone Background Report, as well as a summary of the current cultural resources in and around the City of Lone.

5.1 BACKGROUND/EXISTING SETTING

AREA HISTORY

Historically, Lone and the surrounding region was inhabited the Northern Sierra Miwok, one of the five divisions of the Eastern Miwok. As many as 5,000 Native Americans are estimated to have lived within 10 miles of the Lone Valley in the 1840s (City of Lone, 1982).

Around 1848, William Hicks and Moses Childers settled near the present day City of Lone where they established a lucrative cattle business. The Gold Rush attracted additional settlers to the area and within a few years the town supported a post office, blacksmith shop, churches, and schools. In the mid-1850s, a large sawmill and flourmill were added to the city. By 1876, Lone's population had grown to roughly 600. The Central Pacific Railroad laid tracks at this time. The discovery nearby of lignite (a substitute for coal) prompted the need to improve transportation in the region. This resulted in construction of better roads and extended rail service. Lone City held the County's first agricultural fair in 1862. Steady growth continued for the next two decades (Jones & Stokes, 2007). The City incorporated in 1953; it is currently the second largest city in the county (exclusive of the population at Mule Creek State Prison).

Known Resources

The racetrack at the City of Lone's Charles Howard Park is considered one of the earliest in Northern California, having been constructed prior to 1885. The use of the park dates back to the 1870s when the racetrack was developed and horse races were held in the park. Though the racetrack remains, the grandstand and associated buildings have been removed or renovated and the interior of the track has been developed as sports fields (ECORP, 2003).

Another historical feature is Preston Castle. The "Castle," built in 1890-1894, is the most significant example of Romanesque Revival architecture in the Mother Lode region. It was built to house the Preston School of Industry, established by the State Legislature as a progressive action toward rehabilitating, rather than simply imprisoning, juvenile offenders. The doors of the 120-room "Castle" closed in 1960 after new facilities were completed. The Preston Castle is listed with the state as California Registered Historical Landmark No. 867 (<http://www.noehill.com/amador/cal0867.asp>). A private group called the Preston Castle foundation is restoring the castle, to become an arts college.

5.2 REGULATORY FRAMEWORK

FEDERAL

National Historic Preservation Act

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966, and as amended. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties and, if appropriate, afford the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The council's implementing regulations, "Protection of Historic Properties," can be found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106

5.0 CULTURAL RESOURCES

review process is to offer a measure of protection to sites which are determined eligible for listing or listed in the National Register of Historic Places. The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Recent amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementation regulations have strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations come into play in the private sector if the proposed project requires a federal permit (i.e., Section 404 of the CWA Permit) or if it uses federal money.

STATE

California Environmental Quality Act

CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. State CEQA Guidelines Section 15064.5 defines a significant effect as one that may cause a substantial adverse change in the significance of an historical resource. A "substantial adverse change" means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, such that the significance of an historical resource is materially impaired.

The California Register of Historical Resources (CRHR) serves as the authoritative guide to resources that are considered significant under CEQA. However, simply because a resource is not currently listed in the CRHR does not mean that it is not a historical resource. A "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant (Pub. Res. Code Section 5020.1). Section 15064.5 of the State CEQA Guidelines specifies criteria for evaluating the importance of cultural resources. Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to museums, historical commissions, associations, and societies, shall be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (Health and Safety Code Section 7050.5, Pub. Res. Code Sections 5097.94 et seq.).

Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided that the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets any of the following criteria for listing on the CRHR (Pub. Res. Code Section 5024.1(c), 14 CCR 4852):

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

California Public Resources Code Section 21083.2 also addresses the identification and protection of unique archaeological resources. A "unique archaeological resource," as defined in this section, is an archaeological artifact, object, or site about which it can be demonstrated that there is a high probability that it meets any of the following criteria:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- 2) Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- 3) Is associated with a scientifically recognized important prehistoric or historic person or event.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, the lead agency shall identify potentially feasible mitigation measures, following guidance in Section 21083.2, to mitigate significant adverse changes in the significance of an historical resource.

FOR MORE INFORMATION

City of Ione. 1982. City of Ione General Plan & Environmental Impact Report.

Jones & Stokes. 2007. Final Tribal Environmental Impact Report for the Buena Vista Rancheria of Me-Wuk Indians of California Gaming and Entertainment Facility.

ECORP, Inc. Letter report to Warren Hughes RE: Ione 80 Property, Project Number 2003-078. November 12, 2003.

California Historical Landmarks in Amador County.
<http://www.noehill.com/amador/cal0867.asp>. Accessed June 10, 2008.

This section provides a discussion of noise conditions and information for the City of Lone Background Report, including major existing sources of noise and the noise-related regulatory environment.

6.1 BACKGROUND/EXISTING SETTING

Major noise sources in and around the Lone Planning Area include State Route (SR) 104, SR 124, and industrial operations in the vicinity, such as the Unimin mining operation. Recent growth in Lone has increased the volume of traffic traveling on both SR 104 and SR 124, as well as increased the associated noise levels. According to the current General Plan, Caltrans estimates that, on a low volume highway (less than 20,000 average daily trips) like those currently traversing Lone, the 70 dB contour range (Ldn) will be reached 1,000 feet from the center of the roadway and the 60 dB contour range will be reached at approximately 200 feet. As traffic volumes and traffic noise increase in the future, housing will be required to be located farther from the road to meet acceptable noise standards or significant attenuation measures will have to be undertaken, such as sound walls and other sound absorbing/reflecting features.

Railroad noise in the Planning Area is limited and occurs on an intermittent basis. None of the railroads that have historically operated in the area are currently providing service (i.e., the Lone and Eastern Railroad, Amador Central Railroad). Industrial operations such as blasting, mining, mineral processing, drilling, and extensive use of heavy equipment do not occur in the city limits. Some large industrial concerns do exist in the southern portion of the City's proposed Sphere of Influence. The Union Pacific railroad currently provides industrial rail service to one or two of the mines (e.g., near Lone-Michigan Bar Road/SR-104) in the Planning Area.

In addition to the mining operations and industrial uses, other intermittent noise-producing sources within the Planning Area include the Ranch Airstrip, an elementary and middle school and Howard Park, as well as construction activities associated with new development and roadway improvements.

The City's General Plan notes that schools, hospitals, long-term care facilities, nursing homes, and other similar sites have been defined by the state as "noise sensitive." Noise levels in these areas should not exceed 60 dB. The only noise-sensitive facilities in Lone are schools, and none of the existing schools are currently located within the 60 dB contour of any significant noise generator (City of Lone, 1989). Noise standards were part of the 1982 Circulation Element, but the Noise Element was repealed in 2003 with adoption of the updated Circulation Element.

6.2 REGULATORY FRAMEWORK

FEDERAL

Federal noise regulations pertain to transportation noise sources, including noise generated by airports and freeway construction and improvement projects. These regulations identify noise abatement criteria (NAC) that are applied to specific land uses, based on sensitivity to noise. The Federal Highway Administration (FHWA) has adopted procedures for the abatement of highway traffic noise, as codified in 23 Code of Federal Regulations, Part 772.

STATE

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation

6.0 NOISE

standards and airport noise/land-use compatibility criteria. California Government Code Section 65302(f) requires a noise element to be part of the General Plan and to address current and projected noise levels associated with major noise sources and identify noise contours for these sources. The *State of California General Plan Guidelines* (State of California 1998), published by the Governor's Office of Planning and Research (OPR), provides guidance for the acceptability of projects within specific noise exposure contours. In addition, Title 24 of the California Code of Regulations establishes standards governing interior noise levels that apply to transient land uses and new multi-family residential units in California.

LOCAL

City of Ione General Plan

The City of Ione General Plan contains standards and policies designed to protect individuals from the harmful and annoying effects of exposure to excessive noise. However, the Noise Element was repealed in 2003 with adoption of the updated Circulation Element.

FOR MORE INFORMATION:

City of Ione. 1982. City of Ione General Plan and Environmental Impact Report.

7.0 AGRICULTURAL AND MINERAL RESOURCES

The purpose of this chapter is to describe the role of agriculture and mining in the City of Lone Planning Area. Included are discussions of historic agricultural operations, current agricultural resources, and current mining operations in the Planning Area.

7.1 BACKGROUND/EXISTING SETTING

AGRICULTURAL RESOURCES

Agricultural uses in and around Lone were historically limited to the growing of corn on the Preston farmlands (City of Lone, 1982). Farmland within the Planning Area is limited to native pasture (dry), irrigated pasture, small grains (wheat and barley), and field crops (such as sugar beets, alfalfa, safflower, beans, and corn) (City of Lone, 1982). In general, soils in the city and surrounding area do not possess characteristics favorable to agricultural purposes. Soil characteristics that generally limit agriculture and development purposes include steep slopes, bedrock located near the surface, high erosion potential, poor drainage, a high percentage of stones and rocks in the profile, low water-holding capacity, low fertility, poor soil structure, and damage caused by flooding (City of Lone, 1982).

The Lone General Plan identifies two land use designations that are pertinent to agriculture, Agricultural Transition (AT) and Agricultural/Mineral Resources (A/MR). The AT designation applies to lands adjacent to urban areas where agriculture is practiced either full time or part time (refer to **Figure 2.0-1** in Section 2.0, Land Use). The intent of this designation is to allow for the orderly transition from agricultural uses to urban and suburban uses while avoiding scattered development patterns (City of Lone, 1982). The A/MR designation identifies lands suitable for agriculture as well as those containing significant mineral deposits for future use. It is the intent of this designation to protect these important natural resources from encroachment by incompatible adjacent uses. Permitted uses in the A/MR designation include agriculture, recreation, and limited residential development. These uses are located beyond the city core to the north, northwest, and south.

The California Department of Conservation (DOC), in partnership with the U.S. Department of Agriculture, Soil Conservation Service (USDA-SCS), maps agricultural resources in the state with the intent of classifying particular farmland by its statewide and local importance. As shown in **Figure 7.0-1**, the Planning Area contains primarily urban and developed land with some areas designated by DOC as "Grazing Land" and "Farmland of Local Importance." The only area within the city limits that contains Prime Farmland is the site of the Preston Castle, just north of SR 104. Farmland of Statewide Importance as well as Unique Farmland is located to the south of the city limits within the Planning Area. Urban and built-up land is primarily in the core of the Planning Area as well as to the northwest. Grazing land is located along the periphery of the city core.

As shown in **Figure 7.0-1**, the majority of FMMP mapped farmland is within the Grazing Land designation within both the city and the Planning Area. Urban/Built-Up Land is the most prevalent designation within the city. The majority of land designated as Prime Farmland and Farmland of Statewide Importance is located within the Planning Area, outside the city limits.

As shown on **Figure 7.0-1**, there are currently no Williamson Act lands (a mechanism for protecting agricultural and open space land from premature and unnecessary urban development) lands within the city limits. However, several Williamson Act lands are located within the Planning Area Boundary.

7.0 AGRICULTURAL AND MINERAL RESOURCES

MINERAL RESOURCES

Mineral resources have played an important role in the City of Lone's development. Gold and copper as well as non-metallic minerals such as lignite have been mined in the Planning Area historically (City of Lone, 1982). The mining of lignite, once used as an alternative to coal, was especially significant in the past as the discovery of this resource led to improvements in local transportation and thus to growth in the city.

Three geologic formations occur within the Planning Area. They include Alluvium, the Lone Formation, and the Amador Group (City of Lone, 1982). Of these three formations, the Lone Formation is of importance for non-metallic minerals. The Lone formation includes an upper and lower layer. The upper layer is composed of clay, sand, clay-sand, and conglomerate. The lower layer contains sand, clay, and lignite. While metallic ores were the primary source of mining activities during the early days of the city, the predominant modes of mining today focus on non-metallics such as clays, sands, and similar materials. Most of the commercial clays desired by mining operations, primarily kaolinite or anauxite, are located in the lower layer of the Lone Formation (City of Lone, 1982). As discussed above, the City has designated areas with known significant deposits of these materials as A/MR in order to prevent development of the land from precluding the extraction of these resources in the future (see "Agricultural Resources" above).

Areas known as Mineral Resources Zones (MRZs) (described further below) are categorized into four general classifications: MRZ-1, MRZ-2, MRZ-3, and MRZ-4. Of the four, the MRZ-2 classification is recognized in land use planning because the likelihood for occurrence of significant mineral deposits is high, and the classification may be a factor in the discovery and development of mineral deposits that would tend to be economically beneficial to society. Map 3, State Classified Mineral Areas in Lone, of the Lone General Plan shows that the majority of Lone and surrounding area are located in MRZ 2 through 3a (City of Lone, 1982).

7.2 REGULATORY FRAMEWORK

Federal, state, and local policies relevant to agricultural resources in the City of Lone are described below.

FEDERAL

Natural Resource Conservation Service

The Natural Resource Conservation Service (NRCS) provides local landowners with experienced professional advice about soil and water development and conservation. This process of local people working to assess community conservation needs, make decisions, and implement solutions is called locally led conservation. At the local level, the NRCS administers an agricultural program known as EQIP (Environmental Quality Incentives Program), which offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land.

STATE

State policies related to agricultural resources include the Williamson Act and legislation related to the Farmland Mapping and Monitoring Program (FMMP).

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, has its roots in the immediate post-World War II period. During that time, California's agricultural and open space lands began to face dramatically increasing conversion pressures from population growth, new commercial enterprises, and rising property taxes. Valuable farmland began disappearing at an increasing rate as conversion to urban uses became the only financially viable alternative for many landowners. The Williamson Act evolved, and continues to evolve, as a statewide strategic response to these pressures. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Private land within locally designated agricultural preserve areas is eligible for enrollment under contract. The minimum term for contracts is ten years. However, since the contract term automatically renews on each anniversary date of the contract, the actual term is essentially indefinite unless non-renewal procedures are enacted by the landowner or county.

The Williamson Act Program has remained stable and effective as a mechanism for protecting agricultural and open space land from premature and unnecessary urban development. Participation in the program has been steady, hovering at about 16 million acres enrolled under contract statewide since the early 1980s. This number represents about one-third of all privately held land in California and about one-half of all the state's agricultural land. Every indication points to an indefinite continuation of this level of participation into the future.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the U.S. Department of Agriculture, Soil Conservation Service (USDA-SCS). The intent of the USDA-SCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing its mapping in the state. The FMMP was created in the State Department of Conservation (DOC) to continue the mapping activity with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in California utilize the Soil Capability Classification and Storie Index Rating systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth of the ground water table, flooding potential, rock fragment content, and rooting depth.

Important Farmland Maps for California are compiled using the modified LIM criteria, as described above, and current land use information. The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into the surrounding classification. The Important Farmland Maps identify five agriculture-related categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land (Department of Conservation, 2004).

Surface Mining and Reclamation Act of 1975

The California Department of Conservation Reclamation Surface Mining and Reclamation Act of 1975 (Section 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a useable condition and readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, wildlife, range, and forage, as well as aesthetic enjoyment. Residual hazards to the public health and safety are eliminated. These goals are achieved through land use planning, by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

The Surface Mining and Reclamation Act (Cal. Pub. Res. Code Section 2710 et seq.) directs the state geologist to identify and map the non-fuel mineral resources of the state in order to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data. As such, the California Geological Survey and the State Mining and Geology Board are the state agencies responsible for the classification and designation of areas containing, or potentially containing, significant mineral resources.

Mineral Resource Classification

Areas known as Mineral Resources Zones (MRZs) are classified on the basis of geologic factors, without regard to existing land use and land ownership. The primary objective of the process is to provide local agencies with the information on the location, need, and importance of minerals within their respective jurisdictions. The areas are categorized into four general classifications (MRZ-1 through MRZ-4) and are defined as follows:

- MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2a:** Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.
- MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. For this report, areas classified MRZ-2b contain discovered mineral deposits that are significant inferred resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration work could result in upgrading areas classified MRZ-2b to MRZ-2a.
- MRZ-3a:** Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources.

MRZ-3b: Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.

MRZ-4: Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.

LOCAL

City of Lone General Plan

The City of Lone General Plan includes several policies as part of the Land Use Element which address preservation of agricultural lands and open space:

Goal 1.00 Provide for efficient distribution of all land uses in order to maintain efficient city operations.

1.2 Policy Avoid any premature development of agricultural lands within the city.

Goal 3.00 Pursue the wise use of natural resources within the city.

3.2 Policy Protect Lone’s remaining mineral resources from conflicting, incompatible land uses.

3.3 Policy Any surface mined lands shall be reclaimed following completion of surface mining operations to a usable condition which is readily adaptable to alternative land uses.

FOR MORE INFORMATION

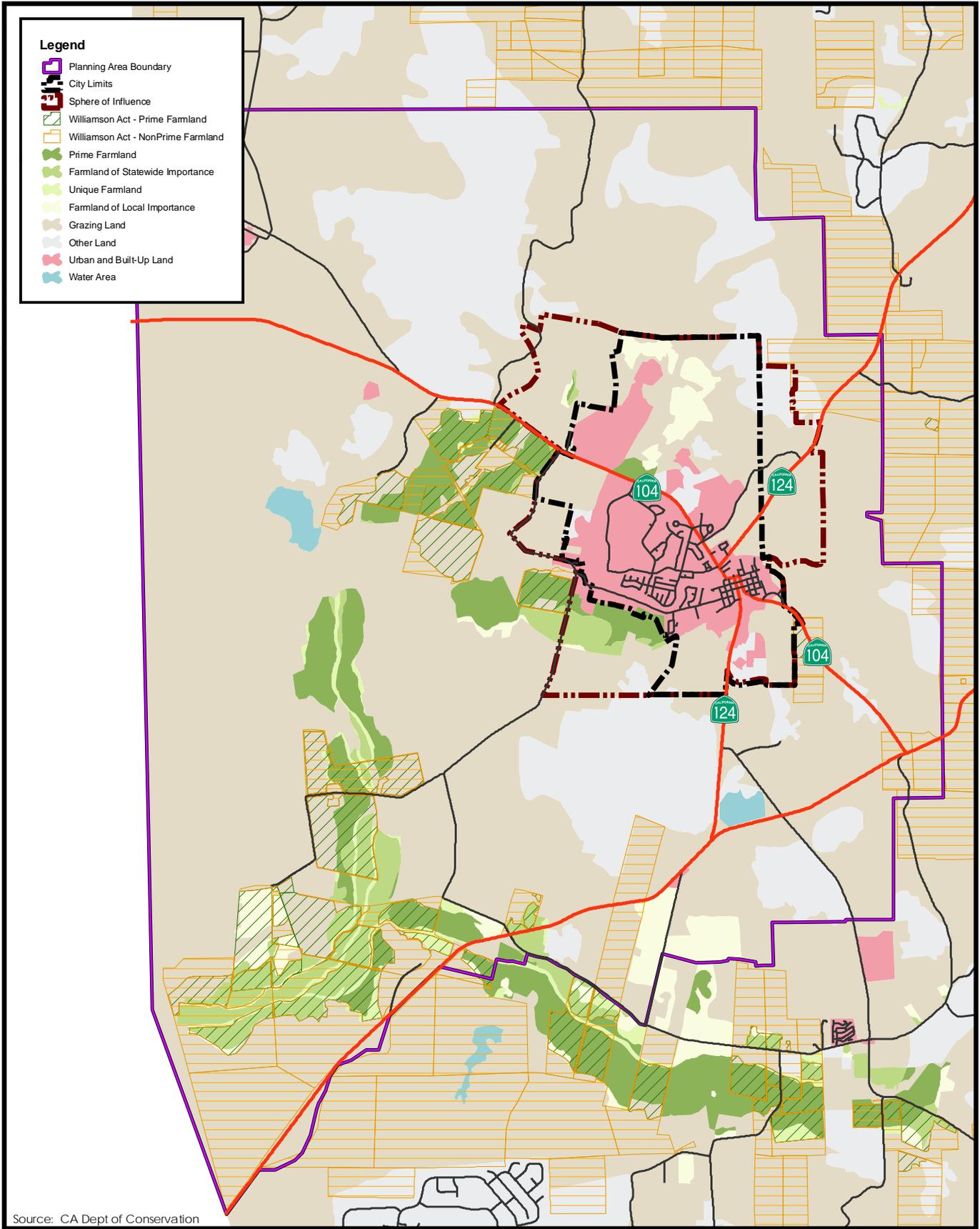
City of Lone. 1982. City of Lone General Plan & Environmental Impact Report.

Department of Conservation. 2004. *A Guide to the Farmland Mapping and Monitoring Program*. 2004 Edition.

Department of Conservation. 2008. Important Farmland and Williamson Act Lands (Figure 7.0-1).

Legend

- Planning Area Boundary
- City Limits
- Sphere of Influence
- Williamson Act - Prime Farmland
- Williamson Act - NonPrime Farmland
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Grazing Land
- Other Land
- Urban and Built-Up Land
- Water Area



Source: CA Dept of Conservation



Figure 7.0-1
Important Farmland and Williamson Act Lands

This section provides a discussion of geology and soils for the City of Ione Background Report, as well as a summary of the seismic conditions and faults around the City of Ione.

8.1 BACKGROUND/EXISTING SETTING

The City of Ione and associated Planning Area are located in the Mother Lode province at the hingeline between the Sierra Nevada foothills and the Sacramento Valley. Three geologic formations occur within the Planning Area. They include Alluvium, the Ione Formation, and the Amador Group (City of Ione, 1982). The majority of the Planning Area is relatively flat. However, there are some areas with slopes greater than 60 percent in both the eastern and western portions of the Planning Area (**Figure 8.0-1**).

Soils in the Planning Area include the Auburn-Exchequer association in the eastern foothills and the Pentz-Pardee and Honcut-Snelling-Ryer association in the south and west. A total of 55 different soil types occur within the Planning Area. Soils occurring within the Planning Area are depicted in **Figure 8.0-2**. At least half of the soil types found in the Planning Area are moderately to very severely prone to erosion (City of Ione, 1982). Soils with clay content can be considered expansive and prone to fluctuations associated with the moisture content. Expansive soils with high "shrink-swell" potential (alternatively swelling in the wet season and shrinking in the dry season) require special engineering for placement of roads, foundations, etc. The majority of soils in the Planning Area are classified as severe (limited capability) relative to septic tank and leach field capability.

Ione is rich in both metallic and non-metallic mineral resources. Historically, Ione was founded by gold miners. In the 1860s, copper was discovered and proved to be in large supply. Clay, coal, sand, and gravel mines are also located in the Planning Area (City of Ione, 1982). Refer to Section 7.0 for a discussion of mineral resources.

Amador County lies between two seismically active regions in the western United States. Tectonic stresses associated with the North American Pacific Plate boundary can generate damaging earthquakes along faults to the west of the county. Eastern Amador County borders the basin and range province that entails most of Nevada and western Utah. This area is riddled with active faults that are responsible for and form the boundary between each basin or valley and the neighboring mountain range. "Active" faults, which represent the highest earthquake hazard, are those that have ruptured to the ground surface during the Holocene period (about the last 11,000 years) (Amador County Multi-Hazards Plan, 2008).

The nearest fault to the Planning Area is the Bear Mountains Fault Zone, which is mapped approximately 2 miles to the east (**Figure 8.0-3**). This fault is considered capable of a maximum earthquake of 6.5 magnitude. Moment magnitude is a logarithmic scale of 1 to 10 used to compare the energy released by different earthquakes on the basis of the area of the geological fault that ruptured in the quake. This worst-case scenario earthquake for the Bear Mountains Fault Zone has a low probability of occurrence, and the State Geological Survey has not designated the Bear Mountain as an active fault (<http://www.parks.ca.gov/pages/500/files/Geology.pdf>).

Other active faults in the region are as follows (ENGEO, 2006):

- The Genoa fault exists approximately 51.6 miles away and is capable of a moment magnitude of 6.9.

8.0 GEOLOGY AND SOILS

- The Mohawk–Honey Lake Zone exists approximately 53.5 miles away and is capable of a moment magnitude of 7.3.
- The Great Valley 7 Fault System exists approximately 60.3 miles away and is capable of a moment magnitude of 6.7.

8.2 REGULATORY FRAMEWORK

STATE

Alquist-Priolo Earthquake Faulting Zone Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994, called the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and criteria of the State Mining and Geology Board that governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within earthquake fault zones delineated on maps officially issued by the State Geologist. Working definitions include:

Fault – A fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side.

Fault Zone – A zone of related faults, which commonly are braided and subparallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles.

Sufficiently Active Fault – A fault that has evidence of Holocene surface displacement along one or more of its segments or branches (last 11,000 years).

Well-Defined Fault – A fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success. "Sufficiently Active" and "Well Defined" are the two criteria used by the state to determine if a fault should be zoned under the Alquist-Priolo Act.

Uniform Building Code (UBC)

To respond to potential for earthquake damage, the City of Lone has adopted the Uniform Building Code (UBC) Section 2312. Lone is in Zone 3 under the UBC classification, which indicates the possibility of major damage corresponding to earthquakes equivalent or greater than Richter Magnitude 6. This includes special design requirements for building and foundation stress capabilities, masonry and concrete reinforcement, and building spacing (City of Lone, 1982).

California Health and Safety Code

The California Health and Safety Code stipulates that all buildings must be designed to resist stresses developed by earthquakes. Accepted seismic design criteria for most structures are presented in the California Building Code.

LOCAL

City of Lone General Plan

The City of Lone General Plan contains the following goal and associated policies relative to geology, soils, and mineral resources:

- 3.00 Goal: Pursue the wise use of natural resources within the city.
 - Policy 3.1: Mineral extraction activities shall be controlled for air, noise, water, and scenic degradation. The controls shall apply to quarrying, processing, and transportation.
 - Policy 3.2: Protect Lone’s remaining mineral resources from conflicting, incompatible land uses.
 - Policy 3.3: Any surface mined lands shall be reclaimed following completion of surface mining operations to a usable condition which is readily adaptable to alternative land uses.
 - Policy 3.5: Grading and erosion shall be controlled to protect soil stability and land contour, to prevent siltation, and maintain environmental quality.

- 9.00 Goal: Provide an environment for city residents which is safe from seismic concerns and other geologic hazards.
 - Policy 9.1: Placement and construction of future structures shall be carefully monitored with respect to existing codes and regulations.

City of Lone Municipal Code

The City of Lone has also adopted by reference portions of the Uniform Building Code (UBC) which address construction and seismic safety. Title 15 of the City’s Municipal Code addresses buildings and construction. The specific sections are identified below:

Title 15: Buildings and Construction – Adopted by Reference

15.04 Uniform Building Code

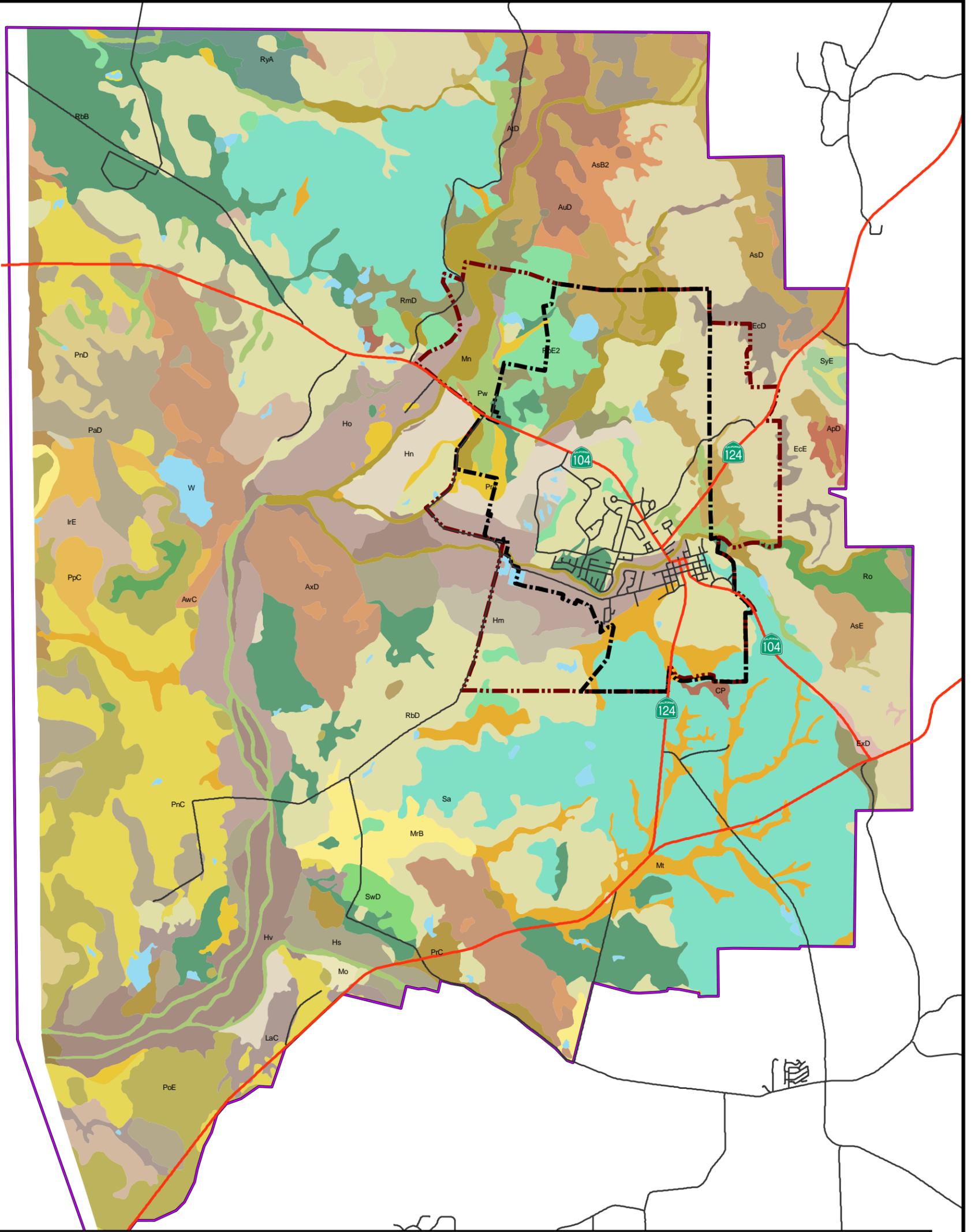
15.24 Uniform Code for Abatement of Dangerous Buildings

FOR MORE INFORMATION

City of Lone. 1982. City of Lone General Plan & Environmental Impact Report.

ENGEO Incorporated. 2006. *Preliminary Geotechnical Report Lone Gold Village, Lone, California*. June 14, 2006.

<http://www.parks.ca.gov/pages/500/files/Geology.pdf> Accessed August 4, 2008.
Environmental Conditions Geology at Folsom State Park Recreation Area. Prepared by Geotechnical Consultants, Inc., April, 2003.



Legend		
	Planning Area Boundary	
	City Limits	
	Sphere of Influence	
	101sa, Amador-Gillender complex, 2 to 15 percent slopes (113 ac)	
	132sa, Creviscreek sandy loam, 0 to 3 percent slopes (24 ac)	
	160sa, Hicksville sandy clay loam, 0 to 2 percent slopes, occasionally flooded (11 ac)	
	222sj, Reliff fine sandy loam, 0 to 2 percent slopes, occasionally flooded (16 ac)	
	A1D, Ahwahnee extremely rocky loam, 9 to 51 percent slopes (9 ac)	
	AnD, Argonaut gravelly loam, 3 to 31 percent slopes (17 ac)	
	ApD, Auburn silt loam, 0 to 31 percent slopes (66 ac)	
	ArC, Auburn silt loam, moderately deep, 3 to 16 percent slopes (10 ac)	
	AsB2, Auburn very rocky silt loam, 3 to 9 percent slopes, eroded (214 ac)	
	AsD, Auburn very rocky silt loam, 3 to 31 percent slopes (1033 ac)	
	AsE, Auburn very rocky silt loam, 31 to 51 percent slopes (134 ac)	
	AtD, Auburn very rocky silt loam, moderately deep, 3 to 31 percent slopes (52 ac)	
	AuD, Auburn extremely rocky silt loam, 3 to 31 percent slopes (363 ac)	
	AuF, Auburn extremely rocky silt loam, 31 to 71 percent slopes (27 ac)	
	AwC, Auburn-Argonaut silt loams, 0 to 16 percent slopes (213 ac)	
	AxD, Auburn-Argonaut very rocky silt loams, 3 to 31 percent slopes (1395 ac)	
	CP, Clay pits (33 ac)	
	EcD, Exchequer very rocky silt loam, 3 to 31 percent slopes (423 ac)	
	EcE, Exchequer very rocky silt loam, 31 to 51 percent slopes ()	
	ExD, Exchequer and Auburn very rocky loams, 3 to 31 percent slopes (39 ac)	
	Hm, Honcut clay loam, over clay (234 ac)	
	Hn, Honcut silt loam (492 ac)	
	Ho, Honcut very fine sandy loam (1427 ac)	
	Hs, Honcut very fine sandy loam, moderately well drained (410 ac)	
	Hv, Honcut very fine sandy loam, channeled (831 ac)	
	IrE, Inks loam and Rock land, 3 to 45 percent slopes (444 ac)	
	IsE, Iron Mountain very stony loam, 9 to 51 percent slopes (7 ac)	
	LaC, Laniger sandy loam, 2 to 16 percent slopes (254 ac)	
	MP, Mine pits (2 ac)	
	Mn, Mine tailings and Riverwash (702 ac)	
	Mp, Mixed wet alluvial land (2 ac)	
	MrB, Mokelumne sandy loam, 2 to 5 percent slopes (330 ac)	
	MsD, Mokelumne coarse sandy loam, 5 to 36 percent slopes (9 ac)	
	Mt, Mokelumne soils and alluvial land (839 ac)	
	PaD, Pardee cobbly loam, 3 to 31 percent slopes (1090 ac)	
	PnC, Pentz sandy loam, 2 to 16 percent slopes (1878 ac)	
	PnD, Pentz sandy loam, 16 to 31 percent slopes (285 ac)	
	PoE, Pentz sandy loam, very shallow, 2 to 51 percent slopes (1250 ac)	
	PpC, Pentz gravelly sandy loam, 2 to 16 percent slopes (259 ac)	
	PrA, Perkins loam, 0 to 3 percent slopes (197 ac)	
	PrC, Perkins loam, 3 to 16 percent slopes (213 ac)	
	Pw, Placer diggings and Riverwash (649 ac)	
	QU, Quarries (6 ac)	
	RbB, Red Bluff-Mokelumne complex, 0 to 5 percent slopes (2019 ac)	
	RbD, Red Bluff-Mokelumne complex, 5 to 16 percent slopes (4305 ac)	
	RbE2, Red Bluff-Mokelumne complex, 16 to 36 percent slopes, eroded (546 ac)	
	RmD, Red Bluff-Mokelumne-Mine pits complex, 2 to 16 percent slopes (397 ac)	
	Ro, Rock land (220 ac)	
	RyA, Ryer silty clay loam, 0 to 3 percent slopes (207 ac)	
	Sa, Sedimentary rock land (4203 ac)	
	SwD, Snelling sandy loam, 9 to 16 percent slopes (112 ac)	
	SyD, Supan very cobbly loam, moderately deep, 3 to 31 percent slopes (25 ac)	
	SyE, Supan very cobbly loam, moderately deep, 31 to 51 percent slopes (50 ac)	
	W, Water (282 ac)	

Source: NRCS

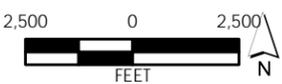


Figure 8.0-2
Soils Map
PMC

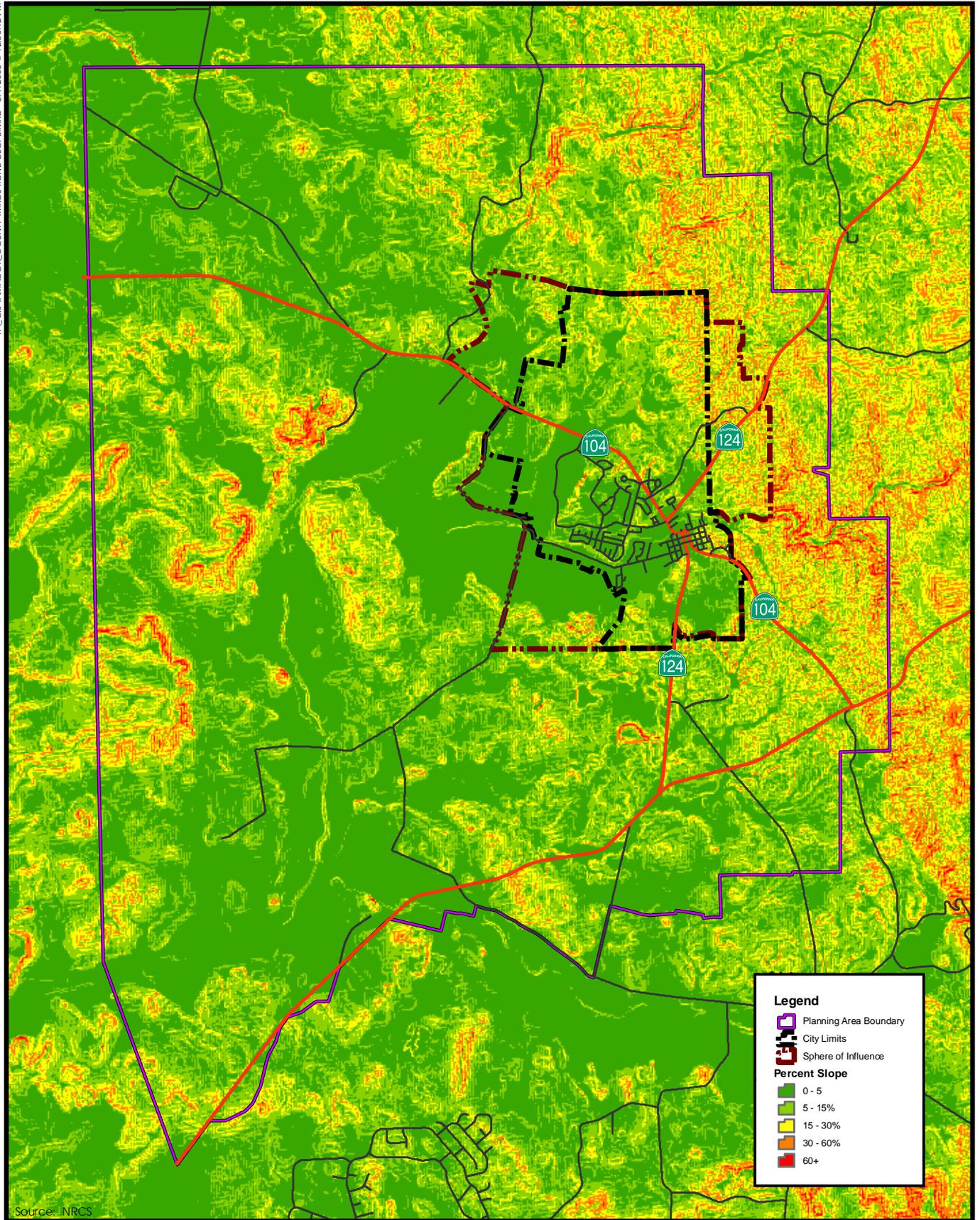


Figure 8.0-1
Slope

T:\GIS\AMADOR_COUNTY\XDS\XDS\VIEW_Faults.MXD - 8/1/2008 @ 4:22:33 PM

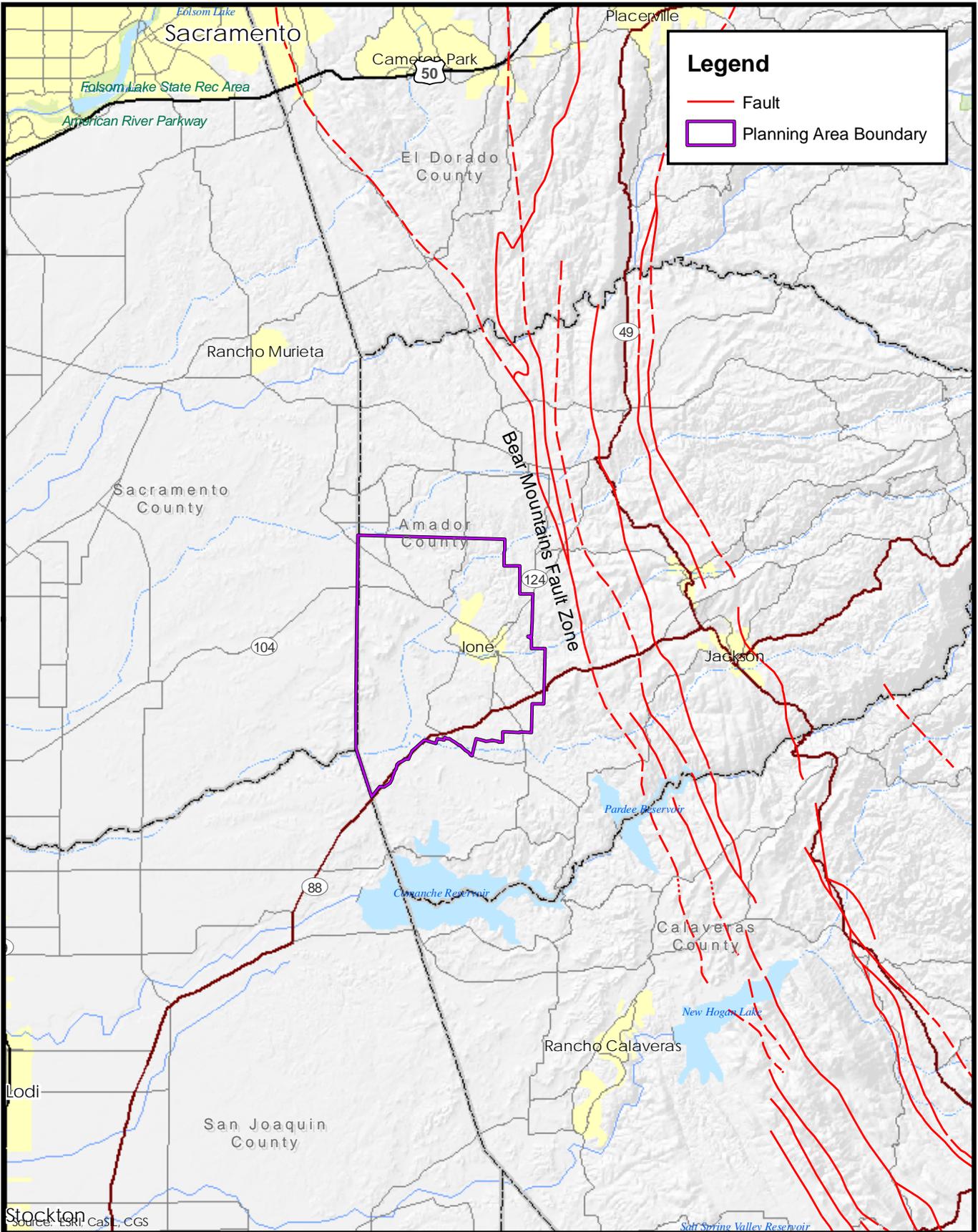


Figure 8.0-3
Known Fault Zones

This section provides a discussion of flooding, wildland, and hazardous materials hazards in and around the Planning Area. Seismic hazards are discussed in the Geology and Soils section of this Background Report.

9.1 BACKGROUND/EXISTING SETTING

The City of Lone and associated Planning Area is located in southwestern Amador County. The terrain of the area includes rolling foothills and several streams and creeks. Development within the city is subject to both flooding and wildland fires due to the city's location in a largely undeveloped portion the county. In the past, the Rancho Seco Nuclear Power Plant had presented a hazard relative to nuclear accident. However, the plant was closed in 1989 and is no longer considered a threat to safety.

FLOODING

The City of Lone and associated Planning Area is located in the Sacramento-San Joaquin Drainage Basin. Stream courses generally align southwest from the foothills to the Central Valley. Major streams in the area include Sutter Creek, which flows through the center of town, and Mule Creek, which is located at the western city limits. Both flow into Dry Creek west of the city within the Planning Area. Dry Creek which eventually drains into the Cosumnes River (City of Lone, 1982). The City of Lone's flood concerns occur mostly where portions of Sutter Creek flow through the city. Flood prone areas are depicted in **Figure 9.0-1** (US Forestry Service [USFS] Remote Sensing Lab, 2007).

Surface drainage flows westward through a series of naturally occurring channels that distribute water to the City of Lone's municipal storm water system via street drains. The City recently constructed an earthen berm, channel, and detention basin to collect storm water runoff and prevent future flood damage resulting from overland runoff during heavy rain events. The facility is located on the existing baseball fields within Howard Park, immediately southwest of the Planning Area. Flows also go into the Caltrans system as part of the State highways.

Flooding has been a documented hazard in the Planning Area since the 1860s. The area bounded by Main Street, Highway 104, Washington Street, Highway 124, and El Dorado Street has historically experienced on-site flooding. In 1997, Sutter Creek overflowed its banks, causing evacuations in flooded areas (Amador County Multi-Hazard Mitigation Plan, 2006). Sutter Creek has many vertical banks within the city limits that are eroding and at risk of ultimately collapsing. The City recently rebuilt one area of the bank in order to save a backyard from destruction (Amador County Multi-Hazard Mitigation Plan, 2006).

WILDFIRES

The entire Planning Area is located in an area susceptible to risk of wildland fires. The rural setting coupled with hot, dry summers and dense clusters of trees and dry grasses presents increased potential for wildland fire. Fire season typically occurs from early spring to late fall when the rainy season ends and moisture content diminishes, causing vegetation to dry. Wildland fires are primarily associated with the wildland-urban interface (i.e., areas where development is placed next to wildlands). As lone grows, greater potential for exposure to wildland fires could occur.

City is listed as a Wildland-Urban Interface Fire Area under the 2007 California Fire Code. The City and Planning Area are served by the City of Lone Fire Department and the Amador Fire Protection District (refer to Section 14.0).

9.0 HAZARDS

HAZARDOUS MATERIALS

The City of Lone and surrounding Planning Area has historically been used for agricultural and mining activities. Both activities present the potential for contamination resulting from chemicals used in production of crops (fertilizers, pesticides) and mineral extraction (arsenic, etc.). A review of the Calsites website revealed two locations where prior releases of hazardous materials occurred within the Planning Area. The Q Ranch, located at 3391 State Highway 104, is currently performing a voluntary cleanup of contaminated soil with arsenic as a potential contaminant of concern. The second location concerns the MP Associates, Inc. site located at 6555 Jackson Valley Road. This site is a state response site that recently completed its cleanup. Potential contaminants included perchlorate and strontium that may have affected surface water and soil (<http://www.dtsc.ca.gov/database/Calsites/>).

9.2 REGULATORY FRAMEWORK

FEDERAL

Federal Emergency Management Agency (FEMA)

Amador County is a participant in the National Flood Insurance Program (NFIP), a federal program administered by the Federal Emergency Management Agency (FEMA). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted, as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Amador County is occasionally audited by the DWR to ensure the proper implementation of FEMA floodplain management regulations.

Environmental Protection Agency

The Environmental Protection Agency (EPA) provides leadership in the nation's environmental science, research, education, and assessment efforts. The EPA works closely with other federal agencies, state and local governments, and Indian tribes to develop and enforce regulations under existing environmental laws. The EPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes responsibility for issuing permits and for monitoring and enforcing compliance.

Other Federal Agencies

Other federal agencies that regulate hazardous materials include the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials.

- Federal Water Pollution Control
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act

- Comprehensive Environmental Response, Compensation, and Liability Act
- Guidelines for Carcinogens and Biohazards
- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

STATE

California Environmental Protection Agency

The California Environmental Protection Agency (Cal-EPA) and the State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Subsequent development under the proposed Jackson Land Use, Circulation, and Zoning project may be subject to one or more of the above laws.

California Department of Toxic Substances Control

Within Cal-EPA, the Department of Toxic Substances Control (DTSC) has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

Amador County Multi-Hazard Mitigation Plan

The Amador County Multi-Hazard Mitigation Plan is a multijurisdictional plan that includes the County and the incorporated communities of Amador City, Lone, Jackson, Plymouth, and Sutter Creek. The purpose of hazard mitigation and this plan is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Amador County, California. This plan has been prepared to meet Disaster Mitigation Act of 2000 (DMA 2000) requirements in order to maintain Amador's eligibility for the Federal Emergency Management Agency (FEMA)

9.0 HAZARDS

Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Programs (HMGP), and it lays out the strategy that will enable Amador County to become less vulnerable to future disaster losses.

Amador County is vulnerable to several natural hazards that are identified, profiled, and analyzed in the plan, including wildfires, floods, and drought. This plan has been formally adopted by each participating entity and is required to be updated a minimum of every five years (Amador County, 2006).

FOR MORE INFORMATION

City of Ione. 1982. General Plan and Environmental Impact Report.

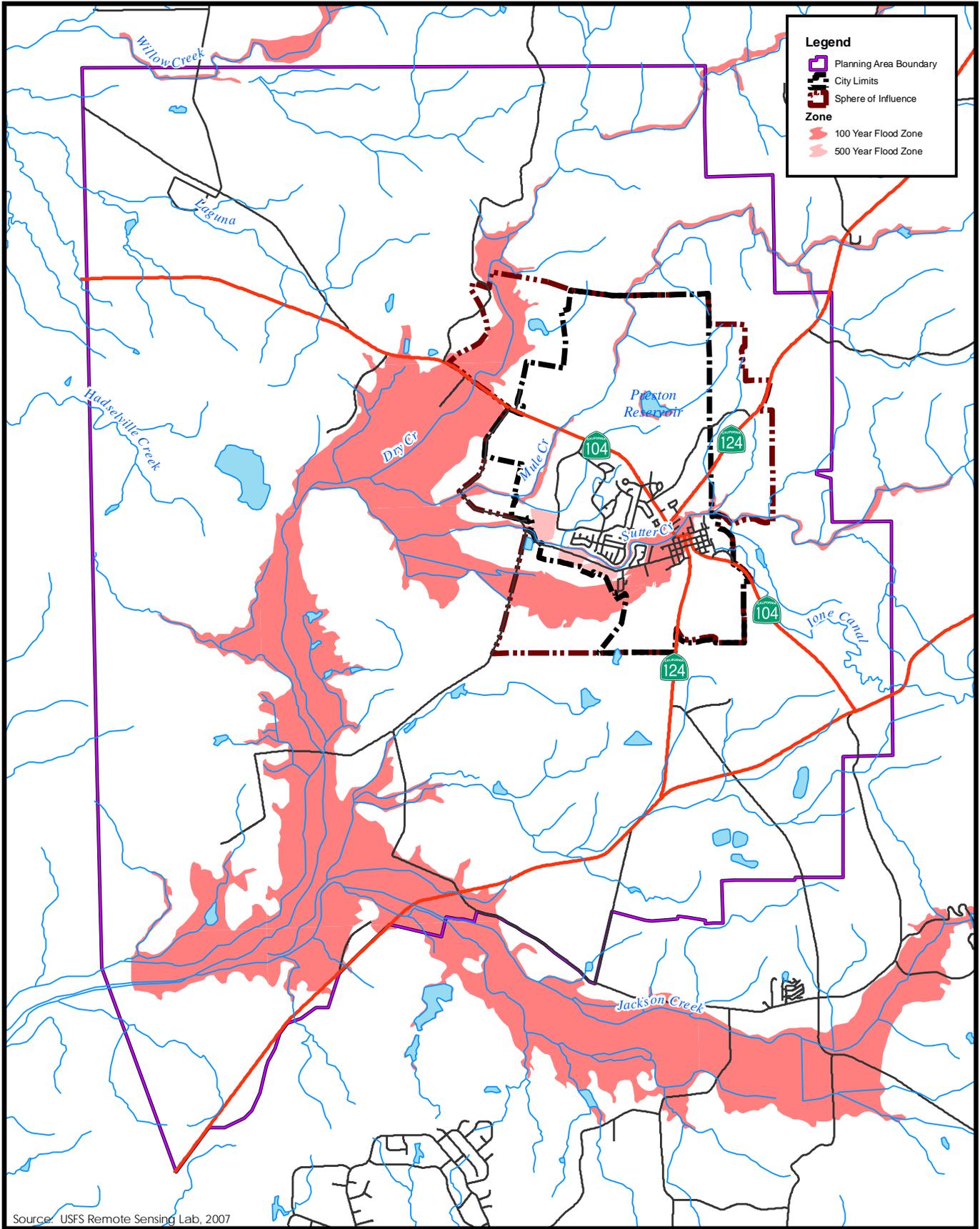
Amador County Multi-Hazard Mitigation Plan. August 2006.

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=03390001

http://www.envirostor.dtsc.ca.gov/public/map.asp?global_id=03390001

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60000391

http://www.envirostor.dtsc.ca.gov/public/map.asp?global_id=60000391



Source: USFS Remote Sensing Lab, 2007



Figure 9.0-1
Flood Hazards Map

This section provides a discussion of population, employment, and housing for the City of Lone Background Report. The Planning Area includes both the existing city limits and the SOI. This discussion focuses on the City as the remainder of the Planning Area is sparsely developed at this time.

10.1 BACKGROUND/EXISTING SETTING

POPULATION

The 2000 U.S. Census indicated that lone had a population of 7,214, including the population of inmates at the Mule Creek State Prison. In the ensuing years since the census, the City has seen steady growth. The California Department of Finance estimate of the population of the City of lone was 7,842 as of January 1, 2007. This represents a 2.9 percent increase from the estimated population of January 1, 2006, of 7,613. Lone is the largest incorporated city within Amador County as shown in the table below. According to the California Department of Finance in 2005, 57.6 percent (21,953 individuals) of Amador County residents lived in the unincorporated county and the remaining 42.4 percent (16,180 individuals) lived in the incorporated cities.

**TABLE 10.0-1
POPULATION ESTIMATES**

City	Population (2006)
Amador	213
lone	7,613
Jackson	4,350
Plymouth	1,060
Sutter Creek	2,944
Total Incorporated Population	16,180
Unincorporated County	21,953

Source: California Department of Finance, 2006, in Jones & Stokes, 2007.

Note: The population of lone includes 3,650 inmates held at Mule Creek State Prison.

EMPLOYMENT

The economy of lone is composed of mining, manufacturing, services, trade, and public service institutions. The Mule Creek State Prison, which was established in 1987, created 750 new jobs and is one of the city's largest employers. Other major employers include the California Youth Authority and the California Department of Forestry (City of lone, 1982). Several mining operations, including Owens-Illinois (sand and limestone), North American Refractories (clay, refractory products), Unimin (bricks and clay), and American Lignite Products Company (montana wax and lignite) are also major employers.

The central business district is located on and adjacent to Main Street, and a neighborhood shopping center is located on Highway 124/104 near Sutter Creek. This area contains the majority of lone's retail and service offerings. These operations are small and often locally owned, employing only a few individuals.

10.0 POPULATION AND HOUSING

HOUSING

The City of Lone has a variety of housing stock ranging from older single-family residences near the downtown core to newer homes within two new developing subdivisions, Castle Oaks and Wildflower. The Castle Oaks development includes an 18-hole golf course. The city also has multi-family dwellings as well as several mobile home parks.

The Department of Finance's E-5 Population and Housing Estimates (2006) estimate the number of vacancies in the counties of California and their incorporated cities. As of 2006, Lone had a total of 1,411 housing units, 90 of which were vacant. This represented a 6.38 percent vacancy rate (Department of Finance, 2006, in Jones & Stokes, 2007).

Areas outside the City limit within the Planning Area consist of undeveloped open space with some agricultural area. Residential development is extremely sparse beyond the City limits.

10.2 REGULATORY FRAMEWORK

STATE

State Housing Policies

State policies affecting land use regulations in cities throughout California are included in housing policies as established by the Housing Element of the City of Lone General Plan. The Housing Element is the primary policy document regarding the development, rehabilitation, and preservation of housing for all economic segments of the population within a jurisdiction and is required by law. Accordingly, the Housing Element identifies and analyzes the existing and projected housing needs and states goals toward providing sufficient housing. The element contains policies, quantified objectives, and implementation programs for the preservation, improvement, and development of housing in the City of Lone.

State law sets out a process for determining each local jurisdiction's fair share of regional housing needs, called the Regional Housing Needs Determination (RHND). As a first step in the process, the State Department of Housing and Community Development (HCD) assigns each regional council of governments a needed number of new housing units for that region, including affordable housing.

Proposition 46

In November 2002, the "Housing and Emergency Shelter Trust Fund Act of 2002" was passed by the voters of California. Prop. 46 created a trust fund to provide shelters for battered women, clean and safe housing for low-income senior citizens, emergency shelters for homeless families with children, housing with social services for homeless and mentally ill persons, repairs/accessibility improvements to apartments for families and handicapped citizens, veteran homeownership assistance, and security improvements/repairs to existing emergency shelters. Funded by a bond issue of \$2.1 billion, Prop. 46 makes cities and counties eligible to receive specified funds and subjects expenditures to independent audit. Prop. 46 also appropriates money from the state General Fund to repay bonds.

Lone's Housing Element complies with the Workforce Housing Reward Program Funded by Proposition 46, which provides grants eligible to local governments for every qualifying unit

permitted starting January 1, 2005 (California Department of Housing and Community Development).

LOCAL

City of Lone General Plan

The existing City of Lone General Plan was adopted in 1982, and its Housing Element was last updated in 2005. The adopted element reflects the City's commitment to address the housing and community development needs of lone families and special housing needs groups. Because the adopted housing element complies with state housing element law, the City has met one of the threshold requirements for an innovative new program that rewards local governments for approving affordable workforce housing.

FOR MORE INFORMATION

City of Lone, 1982. City of Lone General Plan.

City of Lone. 2005. Housing Element

California Department of Housing and Community Development.
(http://www.hcd.ca.gov/hpd/hrc/plan/he/he_review_letters/amione070105.pdf)

Department of Finance in Jones & Stokes. 2007. Final Tribal Environmental Impact Report for the Buena Vista Rancheria of Me-Wuk Indians of California Gaming and Entertainment Facility. May 2007.

This section describes the network of highways and roadways serving the City of Ione and the Planning Area. Bicycle and pedestrian facilities are also discussed.

11.1 BACKGROUND

ROADWAY SYSTEM

Regional Facilities

Two state highways pass through the City of Ione and the Planning Area, State Route (SR) 104 and SR 124. A third, SR 88 passes through the Planning Area south of the City. Each is described below and depicted in **Figure 11.0-1**.

State Route 104. State Route (SR) 104 connects the junction of SR 99 north of the City of Galt in Sacramento County to the junction of SR 49 in Sutter Creek. As designated, SR 104 includes an unconstructed segment east of SR 49 to SR 88, near Pine Grove. SR 124 is concurrent with SR 104 for a 0.2-mile segment in downtown Ione.

SR 104 is classified as a major collector. Most of SR 104, including the segment in and around the City of Ione, has a 30-foot kingpin-to-rear-axle (KPRA) advisory for trucks. Trucks which exceed this limit are not advised to travel this route because two 90-degree turns in downtown Ione cannot be negotiated by a 30-foot or more KPRA truck without infringing onto opposing traffic lanes.

State Route 124. SR 124 connects SR 88 south of the City of Ione to SR 16 north and east of the City of Ione. SR 124 is functionally classified as a minor arterial. Portions of SR 124, including the segment in and around the City of Ione, have a 30-foot KPRA advisory for trucks. Any truck which exceeds this limit is not advised to travel this route for the same reasons identified for SR 104.

The Amador Transportation Commission (ACTC) has been planning the South and West Ione Transportation Corridor Project. The 2004 Amador County Regional Transportation Plan Update identified an "Interim West Bypass" involving the construction of a roadway (arterial or collector) to serve some local traffic and to route truck traffic around the downtown area. The bypass would include the use of a north-south road proposed west of Castle Oaks Drive and a new segment of roadway between SR 104 and Old Stockton Road. It may also include improvements to existing Buena Vista Road from SR 88 to SR 124. While the City of Ione has determined that a bypass is necessary to eliminate illegal and unsafe truck travel on SR 104 and SR 124 through the downtown area, peak hour traffic congestion is also a growing concern.

State Route 88 - SR 88 is a two-lane east/west arterial through Amador County. This highway extends east from San Joaquin County to Alpine County. It generally aligns through the southern portion of the Plan Area trending north-south. Both SR 124 and SR 104 connect with SR 88 within the Plan Area.

ACTC, in collaboration with the City of Ione, Amador County, and the California Department of Transportation (Caltrans), is proceeding with the Interim West Bypass (referred to as the West Ione Road Way Improvement Study, West-IRIS) project based on prior work completed over the last two decades and toward implementation of adopted local and regional plans. The bypass would alleviate congestion, improve safety, improve quality of life, and enhance economic development by improving current operations as well as accommodating future traffic volumes forecast for the area in and around the City of Ione (ACTC, 2008).

11.0 TRANSPORTATION AND CIRCULATION

Local Facilities

The City of Lone is also served by a system of publicly owned and maintained streets of various categories. These streets are as follows:

Arterial Streets. Arterial streets are intended to carry large volumes of traffic. Existing arterials in the Planning Area include Preston Avenue, Church Street, Main Street (between Preston Avenue and Lone Street), and Lone Street (City of Lone, 1982).

Collector Streets. Collector streets carry traffic from neighborhood residential streets to the arterial system. They are not intended to carry large volumes of traffic. Collector streets include West Marlette Street, Sacramento Street, Market Street, Shakeley Lane, Sutter Lane, Waterman Road, and Main Street east of Lone Street. Five-Mile Drive/Old Stockton Road is a county-designated major collector road located west of the central city.

All other streets are classified as local streets. The principal function of a local street is to provide access to property and it is not intended to carry large traffic volumes.

Alternative Transportation Methods

Based on the 2000 U.S. Census, the majority of residents in Lone commuted to work by themselves. A small percentage carpooled. The modes of alternative transportation available to residents of Lone are discussed below (ACTC, 2006).

Transit. Lone is currently served by the Amador Rapid Transit System (ARTS). ARTS operates seven routes through the county: Jackson/Sutter Creek Shuttle, Jackson/Mace Meadow/Amador Sacramento Express, Jackson/Plymouth, Sutter Hill/Lone, Sutter Hill/Pine Grove/Volcano, and Sutter Hill/Lone/Camanche (<http://www.amadortransit.com>). The service operates Monday through Friday from approximately 6:00 a.m. to 7:00 p.m. (City of Lone, 1982).

Bicycle Facilities. With the exception of bike lanes that have been installed in new development (Castle Oaks), the City of Lone does not have any formal bike lanes. However, the City does have a list of proposed bikeway and sidewalk projects (City of Lone, 2008). The list includes 31 sidewalk improvements and 20 bike lane improvements. The majority of these facilities are proposed for the downtown area (City of Lone, 2008).

Rail System. A rail line connects the City of Lone with Stockton. This line is used for light industrial purposes only (Amador County Multi-Hazard Mitigation Plan, 2006). Sierra Pine of Martell ceased operation of a commercial rail line between Martell and Lone in 2004 (Amador Ledger Dispatch, 2004). No other rail service is provided to the city.

Park and Ride Lots. Park and Ride Lots are purposely built parking lots (typically free) where commuters park their vehicles and transfer to public transportation or a carpool to continue their journey. The city does not currently have a park and ride lot, but plans are in progress for construction of the Lone Park and Ride at the northwest corner of the intersection of West Main Street and South Sacramento Street. Currently, ACTS provides a pickup for commuter service from the Ace Hardware/Lone Shopping Center. This service would move to the Park and Ride Lot when it is completed in late 2008 or early 2009.

11.2 REGULATORY FRAMEWORK

The transportation system in Ione is regulated by agencies on the state and local levels. The regulatory bodies that are pertinent to the city's transportation system are discussed below.

STATE

California Department of Transportation (Caltrans)

Caltrans is responsible for planning, designing, constructing, and maintaining all state highways. The jurisdictional interest of Caltrans extends to improvements to roadways at the interchange ramps serving area freeways and the freeways that connect the municipalities. Any federally funded transportation improvements would be subject to review by Caltrans staff and the California Transportation Commission.

LOCAL

Amador County Transportation Commission (ACTC)

ACTC has jurisdiction over the transportation network within Amador County. ACTC works in partnerships with other agencies and municipalities within its jurisdiction including the County and the Cities within the County, including Ione, Jackson, Amador City, Plymouth, and Sutter Creek. ACTC facilitates implementation of the Countywide Regional Transportation Plan. ACTC has also prepared the Amador County Pedestrian and Bicycle Transportation Plan and is responsible for its implementation.

City of Ione General Plan

The City of Ione General Plan Circulation Element (last updated in 2003) contains local goals and guiding policies related to all aspects of new development. The Circulation Element was last updated in 2003. The Circulation Element contains a policy that requires that the City maintain a minimum level of service "C" (LOS C) for major arterials, collector streets, and intersections and implement circulation improvements prior to deterioration in levels of service below LOS C for arterials and collectors. This standard has been difficult to maintain, given recent development levels and traffic volumes.

The General Plan includes the following goals and policies which apply to the City's circulation network.

8.00 Goal: Provide a safe and hazard free environment.

Policy 8.3: Identify areas in need of sidewalk improvement and pursue development thereof.

FOR MORE INFORMATION

Amador Rapid Transit Service (ARTS). <http://www.amadortransit.com>

Amador County, California. 2006. *Multi-Hazard Mitigation Plan*. August, 2006.

11.0 TRANSPORTATION AND CIRCULATION

Amador County Transportation Commission (ACTC). <http://www.actc-amador.org/about-actc/index.php>

ACTC. *South and West Lone Transportation Corridor Route Adoption. Technical Memorandum #1 Background/Purpose and Need/Evaluation Criteria.* March 17, 2008.

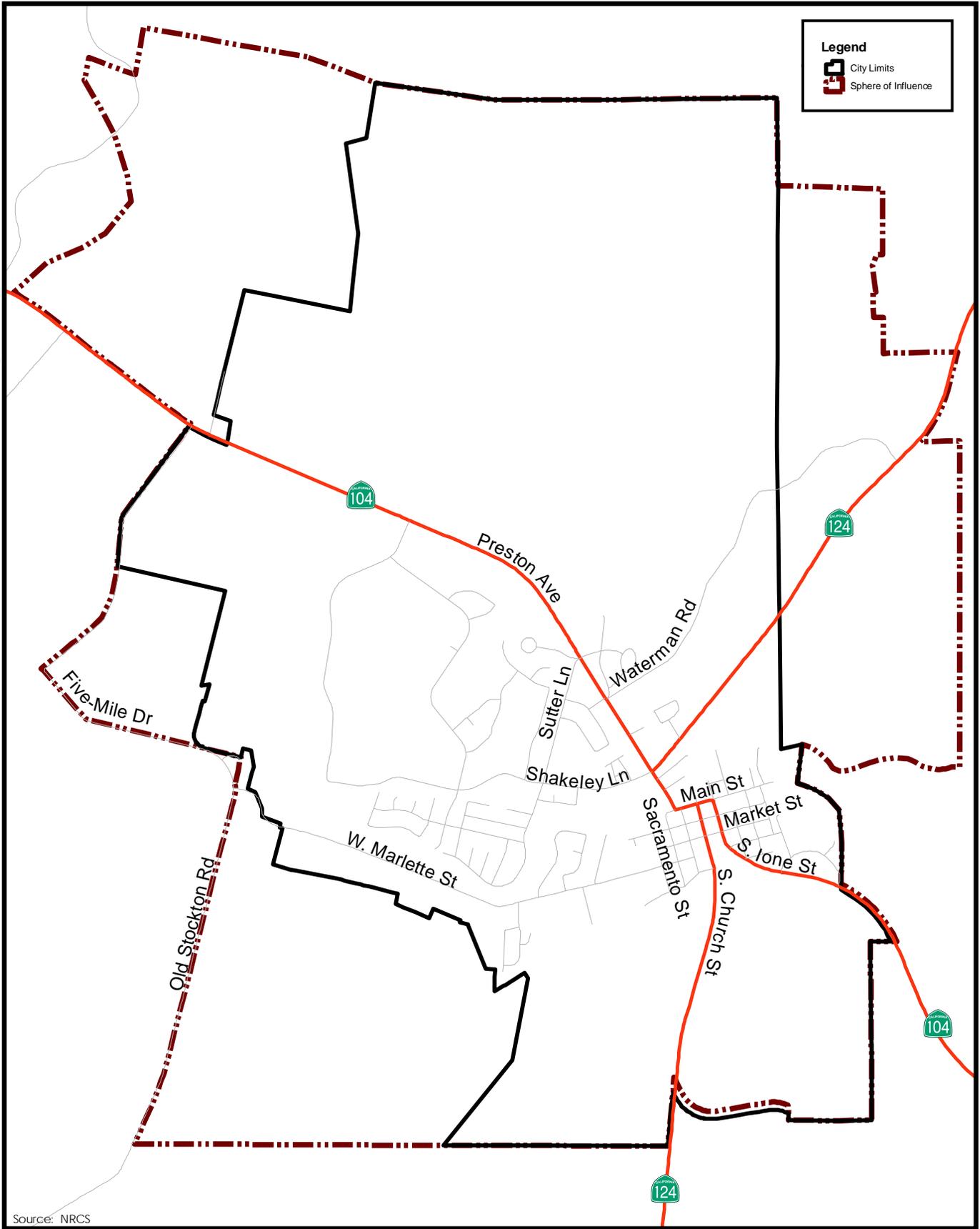
ACTC. *Amador County Bicycle and Transportation Plan.* April 2006.

Amador Ledger Dispatch. <http://www.trainweb.com/info/newspaper/ledger.html>. Sierra Pacific Halts Amador Railroad. May 26, 2004. Website accessed June 11, 2008.

City of Lone. 1982. City of Lone General Plan & Environmental Impact Report.

City of Lone. 2003. Circulation Element.

City of Lone. 2008. *Lone Proposed Pedestrian and Bikeway Projects (Spreadsheet sent via electronic mail)* May 23, 2008.



Source: NRCS



Figure 11.0-1
City of Lone Circulation System

This section describes the existing school facilities that serve the City of Ione and the Planning Area. Capacity and funding mechanisms for schools are also described as part of this Background Report.

12.1 BACKGROUND/EXISTING SETTING

The Amador County Unified School District (ACUSD or the District) provides educational services to the City of Ione and the Planning Area. One elementary school, Ione Elementary School (located at 415 South Ione Street), and one middle school, Ione Junior High (located at 450 South Mill Street), currently serve the city. Students living in Ione attend high school at Argonaut High School in Sutter Creek (501 Argonaut Lane, Jackson, CA).

Table 12.0-1 illustrates the maximum number of students that may be accommodated by the schools serving the Planning Area. As shown, all of the schools are currently exceeding their capacity.

**TABLE 12.0-1
MAXIMUM SCHOOL CAPACITIES AS OF JUNE 2008**

School	Grade Levels	2008 District Capacity ⁽¹⁾	2008 Enrollment ⁽³⁾	Percent Capacity Surplus/(Deficit)
Ione Elementary	K – 6	600	534	89.0%
Ione Middle	6 – 8	599	445	74.2%
Argonaut High	9 – 12	794	663	83.5%

Source: Amador Unified School District, 2008.

ACUSD’s most recent Facilities Master Plan (FMP) was adopted in August 1995 and identified major facility issues and detailed information on future school needs, options, and costs. The District is currently in the process of updating its FMP (ACUSD, 2006).

12.2 REGULATORY FRAMEWORK

STATE

Senate Bill 50

Senate Bill 50 (SB 50), Chapter 407, Statute 1998, which became effective on November 4, 1998, provides authority for three different levels of fees. Education Code Section 17620 provides the basic authority for school districts to levy fees against construction for the purpose of funding construction or reconstruction of school facilities, subject to limits set forth in Government Code Section 65995.

SB 50 requires a school district to conduct a School Facilities Needs Analysis (Needs Analysis), which provides the justification for the imposition of Level 2 fees and calculates the amount of the fee according to a complex statutory formula. Government Code Section 65995.5 specifies the data that must be evaluated in the Needs Analysis, such as the extent of overcrowding in the district, the number of unhoused students, existing school building capacity, surplus property available to the district, projected enrollment growth, and identification of other potential sources of revenue. According to the ACUSD Superintendent’s Office, the District conducted the developer fee justification study in 2003-04.

12.0 SCHOOLS

The Kindergarten-University Public Education Facilities Bond Act of 2002 (Prop. 47)

This act was approved by voters in November 2002 and provides for a bond issue of \$13.05 billion to fund necessary education facilities in order to relieve overcrowding and repair older schools. Funds are targeted to areas of greatest need and must be spent according to strict accountability measures. Funds are also to be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities required to accommodate growing student enrollment. Amador County voters passed the bond with approximately 65 percent of the voters in favor of the bond. The bond provided \$11 million to the District for the renovation of existing facilities and the construction of new facilities.

LOCAL

ACUSD

ACUSD recorded total revenues of approximately \$28,786,445 and total expenditures of roughly \$28,905,353 for the 2004-2005 fiscal year, leaving the District with a negative balance of approximately \$118,908. The District received a total of \$5,461,450 in state aid and revenue limit transfers. Of the \$5,461,450 received in state aid, \$5,442,413 was from apportionments for the current year and an additional \$19,037 was received from apportionments from previous years. State aid and revenue limit transfers also included \$94,585 from a PERS Reduction Transfer. Other state revenues for the District totaled \$4,212,224 and came in the form of various programs, which included but were not limited to the Home-to-School Transportation Program, the School Improvement Program, Class Size Reduction programs, state lottery revenue, and various instructional materials (City of Jackson, 2007).

Local sources of funding for ACUSD include property taxes and various fees. These taxes and fees provided approximately \$16,780,694 to the District. The greatest local revenue for ACUSD was in the form of County/District Secured Roll taxes, which provided approximately \$14,916,669 to ACUSD in fiscal year 2004-2005. Other major local revenue sources included County/District Supplemental Taxes, which yielded approximately \$969,782 in the 2004-2005 fiscal year. Additional local sources of funding for ACUSD include Tax Relief/Homeowners Exemptions and Tax Relief/Timber Yield Taxes, which provided \$939,159 in the 2004-2005 fiscal year. The District also received federal funding in the form of Forest Reserve funds, drug/alcohol/tobacco funds, and various other federal grants and funds which provided \$1,392,918 for fiscal year 2004-2005.

In addition to the funding sources identified above, ACUSD also uses the following fees and sources for District-wide funding:

Developer Fees: State law authorizes school districts to impose school facility fees (developer fees) as a condition of the issuance of building permits to finance certain school facility costs. As of June 23, 2008, ACUSD is currently levying fees against developers at the rates of \$2.97 per square foot for residential development and \$0.46 per square foot for commercial/industrial land uses. In order to establish developer fees, the District is required to develop a justification report which demonstrates the nexus between the fee that is imposed and the need for public facilities created by the new development (ACUSD, 2008).

Mello-Roos: The Mello-Roos Community Facilities Act was established in 1982 to provide a method for local public agencies to form Community Facilities Districts (CFDs) over specific areas, which need not be contiguous. Mello-Roos may be used to finance the construction, expansion, rehabilitation, or acquisition of any real or other tangible property with an estimated

useful life of five years or more and which will be constructed, owned, or operated by a public agency. One method by which a Mello-Roos CFD can be established is on a district-wide basis. The required tax rate and bonding capacity are placed before the voters and require a two-thirds majority vote for approval.

Measure F Funds

In November of 2002, the voters of Amador County voted in favor of Measure F, a general obligation bond that would generate \$11 million in local funds to renovate and upgrade the schools in Amador County. Measure F also made the District eligible for an additional \$11 million in state bonds funds. Measure F funds have been used throughout the District for specific projects, which included but were not limited to the following:

- Upgrade of inadequate electrical systems to improve efficiency and safety;
- Replacement of old heating and plumbing systems with new, energy efficient systems;
- Provision of better access to student classroom technology;
- Upgrade of a science lab;
- Construction of a new multipurpose room (cafeteria/classrooms) at Argonaut High and Lone Jr. High; and
- Improvements to school safety and fire prevention systems.

To date, Measure F funds have all been spent (City of Jackson, 2007)

FOR MORE INFORMATION

California Department of Education website. Dataquest page.
<http://dq.cde.ca.gov/dataquest/>.

California State Allocation Board. January 30, 2008. *Report of the Executive Officer, State Allocation Board Meeting, January 30, 2008, Index Adjustment on the Assessment for Development*. http://www.documents.dgs.ca.gov/opsc/Resources/Index_Adj_Dev.pdf.

Amador County Unified School District. Amador County Public Schools Enrollment, Capacity and Developer Fees. July 7, 2008.

City of Jackson. Jackson Home Depot Draft Environmental Impact Report. August 2007.

This section provides a discussion of law enforcement services for the City of Lone Background Report, including a discussion of the Police Department, their services, staff levels, and equipment.

13.1 BACKGROUND/EXISTING SETTING

Police protection in the City of Lone is provided by the Lone Police Department. The Department is located in City Hall at 1 East Main Street (City of Lone, 1989). The Department provides policing services within the city limits but also has a mutual aid agreement with the Amador County Sheriff's Department. Under this agreement, each agency can respond to calls outside their jurisdiction if necessary.

The Department currently employs five sworn officers, a chief of police, a sergeant, and three patrol officers (Johnson, 2008). The Department hired one additional patrol officer in June 2008. The Department also employs two level-one paid reserve officers (retired CHP) and is supplemented by two additional unpaid reserve officers, a paid community police assistant, and one records clerk.

The Department does not have an established "preferred" ratio for staffing. According to Mike Johnson, City of Lone Chief of Police, the number of officers, when up to full staff, with the reserves' assistance, is adequate to provide police protection to the city. The Department would like to have (at least) two more full-time officers added to the police force so patrol officers could work four, 10-hour shifts with overlap on nights and weekends.

Lone's Police Department currently operates eight vehicles. The Department's current budget is approximately one million dollars annually (Johnson, 2008). The Department receives funding through the Community Oriented Policing Services (COPS) grant (which pays for one position) and public safety assessment fees placed on new homes built in Lone. Community policing focuses on crime and social disorder through the delivery of police services that include aspects of traditional law enforcement, as well as prevention, problem-solving, community engagement, and partnerships (Office of Community Oriented Policing Services, 2008). The majority of the Department's budget comes from the City's General Fund (Johnson, 2008).

Areas outside of the city limits within the Planning Area would be served by the Amador County Sheriff's Department. The Sheriff's Department is responsible for responding to law enforcement calls and provides patrol and investigative services in unincorporated Amador County and contractual cities, provides emergency 911, law enforcement, and ambulance dispatch services throughout Amador County, operates the Amador County Jail, and provides oversight to the Director of the Office of Emergency Services, among other duties (Amador County Sheriff's Department, 2008).

As areas outside the current city limits are annexed into the city, they would be served by the City of Lone Police Department.

13.2 REGULATORY FRAMEWORK

LOCAL

Amador County

Radio Amateur Civil Emergency Services (RACES) is a communications reserve that provides Amador County government with a variety of professional, unpaid (volunteer) skills, including

13.0 POLICE PROTECTION

administrative, technical and operational services, for emergency tactical, administrative, and logistical communications with its agencies, cities within the county, neighboring governments, and the state. This program is administered under the guidance of the Amador County Sheriff's Office of Emergency Services (OES) through the Emergency Services Coordinator (Amador County, 2004). The City of Ione is a participant in the operational area for the RACES program, with the City's Chief of Police serving as the contact for the program.

City of Ione General Plan

The City of Ione General Plan includes the following goals and policies which would support provision of public services, including police.

6.00 Goal: Provide adequate public services to serve all city residents and businesses.

Policy 6.2: On-site and off-site capital improvements necessary to service new development shall be provided by the new development.

Policy 6.3: Ongoing service and maintenance of new development shall be allocated to the new development in proportion to the increased costs of service.

8.00 Goal: Provide a safe and hazard free environment.

Policy 8.6: New development shall not overextend safety services (police and fire).

FOR MORE INFORMATION

Amador County Sheriff's Department. <http://www.sheriff.co.amador.ca.us/>. Accessed July 25, 2008.

City of Ione. 1989. City of Ione General Plan & Environmental Impact Report.

County of Amador. 2004. *RACES Plan Emergency Communications Reserve*. http://acs.oes.ca.gov/Samplans/Amador_RACES.pdf. August, 2004.

Michael Johnson, Police Chief. City of Ione. Personal communication (e-mail), June 5, 2008.

Office of Community Oriented Policing Services. <http://www.cops.usdoj.gov/default.asp?item=36>. Accessed July 25, 2008.

This section provides a discussion of fire protection for the City of Lone and the General Plan Planning Area by identifying existing fire protection facilities and personnel. Wildland fire hazards are discussed in Section 9.0, Hazards.

14.1 BACKGROUND/EXISTING SETTING

Chief Ken MacKey provided the following information regarding the City of Lone Fire Department. The Department is responsible for fire protection in the City of Lone (emergency medical aid service is provided by the Amador Fire Protection District, discussed below). The Department operates one fire station (Station #1) located at 22 West Jackson Street in Lone operated by approximately 33 paid on-call firefighters and one paid fire chief. There are also several assistant chiefs, captains, and on-call duty officers. The Department has several pieces of firefighting equipment, including the following: four type #1 (structure fire) fire engines, one type #3 (wildland) fire engine, one 55-foot ladder truck, one water tender, one wildland quick attack patrol unit, one squad, one rescue unit, and one ReHab support unit (City of Lone, 2006). The City's response threshold is five minutes (City of Lone, 2006). The Department's ability to meet this threshold is affected by a variety of factors, including traffic and weather conditions. The Insurance Service Office (ISO) rates fire departments on a scale of 1 to 10. Class 1 represents the best public protection rating and Class 10 indicates no recognized protection. The Lone Fire Department currently has an ISO rating of Class 5 (City of Lone, 2006).

The Fire Department is currently constructing a new fire station adjacent to State Route (SR) 104 (Preston Drive), approximately one-quarter mile north of the intersection of Shakeley Lane and SR 124, adjacent to Waterman Road. The new station will be approximately 8,250 square feet (110 feet wide by 75 feet deep). The building will be set back 44 feet from the sidewalk on Preston Avenue.

The Lone Fire Department is funded by payment of new development fees.

Areas within the Planning Area outside the City limits are currently served by the Amador Fire Protection District. The District is responsible for emergency fire, rescue, and medical aid service in approximately 85% of the unincorporated area of Amador County. This includes the communities and surrounding areas of Amador Pines, Pioneer, Pine Grove, Pine Acres, Volcano, Martell, Drytown, Willow Springs, Fiddletown, River Pines, and the City of Plymouth. The AFD maintains automatic aid and mutual aid agreements with surrounding fire departments/districts and the California Department of Forestry and Fire Protection (www.co.amador.ca.us/depts/afpd/).

14.2 REGULATORY FRAMEWORK

STATE

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Fighting Equipment," the California Occupational Safety and Health Administration (Cal OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

14.0 FIRE PROTECTION

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The UFC also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building, childcare facility standards, and fire suppression training.

LOCAL

Amador County Multi-Hazard Mitigation Plan

The Amador County Multi-Hazard Mitigation Plan is a multijurisdictional plan that includes the County and the incorporated communities of Amador City, Lone, Jackson, Plymouth, and Sutter Creek. The purpose of hazard mitigation and this plan is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Amador County, California. The plan and planning process lays out the strategy that will enable Amador County to become less vulnerable to future disaster losses. The plan acknowledges that Amador County is vulnerable to several natural hazards that are identified, profiled, and analyzed in the plan including wildfires, floods, and drought. This plan has been formally adopted by each participating entity and is required to be updated a minimum of every five years (Amador County, 2006).

City of Lone General Plan

The City of Lone General Plan includes the following goals and policies that would support provision of public services, including fire.

- 6.00 Goal: Provide adequate public services to serve all city residents and businesses.
 - Policy 6.2: On-site and off-site capital improvements necessary to service new development shall be provided by the new development.
 - Policy 6.3: Ongoing service and maintenance of new development shall be allocated to the new development in proportion to the increased costs of service.

- 8.00 Goal: Provide a safe and hazard free environment.
 - Policy 8.2: Develop and maintain an effective fire prevention planning program.
 - Policy 8.6: New development shall not overextend safety services (police and fire).

FOR MORE INFORMATION

Amador County, California. *Multi-Hazard Mitigation Plan*. August 2006.

Amador Fire Protection District website. www.co.amador.ca.us/depts/afpd/ Accessed August 1, 2008.

City of Ione, 1982. *City of Ione General Plan and Environmental Impact Report*.

City of Ione. 2006. *Gold Village Initial Study*.

This section provides a discussion of water supply, treatment, and conveyance for the City of Lone Background Report, as well as a summary of the current land use conditions in and around the City of Lone. The Planning Area beyond the City limits is currently undeveloped and, with the exception of Unimin Corporation, does not receive municipal water service. Currently Unimin's sand mining operation located south of the City in Unincorporated Amador County is using potable water from AWA. In the future Unimin may be transitioned to recycled/tertiary water, either from the City or AWA (Jordan, 2008).

15.1 BACKGROUND/EXISTING SETTING AND LAND USE

AMADOR WATER AGENCY (AWA)

AWA provides wholesale, retail, raw, and treated domestic water to most of Amador County's residences and businesses. AWA has two main water systems, which include the Amador Water System (AWS) and the Central Amador Water Project (CAWP). The AWS, formerly owned by PG&E, serves approximately 10,000 customers, including AWA's retail customers and the retail customers of AWA's wholesale customers within the service area boundaries of Jackson, Martell, Sutter Creek, Sutter Hill, Lone, Amador City, Drytown, and other areas located between Lake Tabeaud and Sutter Hill (City of Jackson, 2005).

The annual usage of AWS is approaching 6,000 acre-feet per year (AFY) (Hebrard, 2008). This annual use includes an estimate for unmetered/flat rate users (including the cities of Amador, Lone, Sutter Creek, and Jackson). The system has an available annual capacity of 15,000 AFY (Hebrard, 2008). As shown in Table 15.0-1, the City of Lone's current maximum day usage is 2.774 million gallons per day (mgd).

**TABLE 15.0-1
AWS IONE TREATMENT PLANT CONNECTION COMMITMENTS**

Current Water Treatment Plant Capacity	# of EDUs* 3,650	Peak MGD 3,300
Maximum Day Usage		
Residential	1,536	1.382
Commercial	229	0.206
Industrial	1,300	1.185
TOTAL	3,065	2.774
Will Serves		
	384	0.346
TOTAL	3,449	3.119
Conditional Will Serves		
	838	0.754
TOTAL	4,287	3.874
Letters of Water Availability		
	405	0.365
TOTAL	4,692	4.238

15.0 WATER

Current Water Treatment Plant Capacity	# of EDUs* 3,650	Peak MGD 3,300
Future Projects**		
	1,989	1.790
TOTAL	6,681	6.028

Source: AWA, 2008

* Peak GPD/EDU 900 Avg GPD/EDU 400

The projects identified in the future are listed primarily for informational purposes for AWA. These are projects that AWA is aware of and are used to track projects which have not yet requested a Letter of Water Availability.

Table 15.0-1 identifies treatment capacity and existing commitments in the form of will serves and conditional will serves. Per AWA's Water Code, a conditional will serve has a two-year term and can be issued once a project receives a tentative map from the Land Use Agency. Once the conditions of the letter are met, a will serve is issued. However, if the conditions of the letter are not met within two years, the letter expires and the applicant must re-apply. Once a new application is received, a new conditional will serve letter is issued, the project is placed at the bottom of the list of waiting requests, and new conditions may be added to the project.

A Letter of Water Availability is issued when requested. Although there is no commitment promised, there are many benefits of the letter. For example, all likely conditions for the project are identified, which allows the applicant to estimate costs of improvements for the project and decide whether or not to move forward based on firm information, instead of conjecture. It also allows the applicant to begin preparing for the project, should the applicant desire to continue with the project without a formal will serve.

In the long-term, AWA is in the process of constructing an expansion to the existing Tanner Water Treatment Plant in Sutter Creek. Upon completion of this plant, the lone Water Treatment Plant (see below) will be decommissioned. The existing raw water facilities will be converted to treated water. The project is currently scheduled to be complete in late 2010 or early 2011 (Griffin, 2008).

Surface Water Supplies

Surface water accounts for approximately 98 percent of the AWA's total supply (City of Jackson, 2007). Surface water is the sole supply source for both the AWS and the CAWP. AWA receives surface water for the AWS and CAWP from the Mokelumne River.

In 1985, AWA acquired AWS from PG&E and the contractual right to not more than 15,000 AFY at a rate not to exceed 30 cubic feet per second (cfs). In 1978, AWA entered into an agreement with PG&E for the use of its facilities to store and divert water under water rights acquired by AWA for the CAWP water system. CAWP pumps water from the Mokelumne River at PG&E's Tiger Creek afterbay. The CAWP surface water diversion is limited to a firm yield of 1,150 AFY. AWA is currently working to obtain additional surface water rights for the CAWP system, which would expand the surface water diversions to 2,200 AFY.

AWA's 15,000 AFY water supply for AWS represents a "safe yield" because of AWA's pre-1914 appropriative water rights, which support water diversions and storage for such systems. AWA estimates current water supplies, which include groundwater, surface diversions, and recycled water (non-AWA facilities), at 17,238 AFY and projects that water supplies will reach 18,561 in 2030 (Amador Water Agency, 2005).

City of Lone Distribution System

The City of Lone Distribution System, operated by AWA and comprising local water supply infrastructure and the Lone Water Treatment Plant, serves the incorporated area of Lone plus a few subdivisions in the unincorporated western portion of the county. Water is conveyed from the Lone Reservoir via a 14-inch pipe to the City's Water Treatment Plant. In addition, the Lone canal and pipeline system supply raw water to the City's major industries and to the Lone Water Treatment Plant. Water from the Lone Water Treatment Plant is delivered to the City of Lone and the California Department of Forestry or is pumped to the State Department of Corrections prison storage tank (City of Lone, 1989).

The Lone Water Treatment Plant

The Lone Water Treatment Plant was constructed in 1953 with a design capacity of 0.65 mgd. The plant's capacity was expanded to 2.5 mgd in 1988. Currently, the plant is treating 2.774 mgd (refer to **Table 15.0-1**). The plant serves the City of Lone as well as the Mule Creek State Prison facility.

15.2 REGULATORY FRAMEWORK

STATE

State Water Resources Control Board – Basin Plan for the Central Valley Region

The Basin Plan for the Central Valley Region covers the entire area of the Sacramento and San Joaquin River drainage basins, which includes the Mokelumne River basin. The Basin Plan defines beneficial uses for both surface waters and ground waters in this region.

LOCAL

Amador Water Agency Urban Water Management Plan 2005

AWA published and adopted its Urban Water Management Plan in October 2005. The Urban Water Management Plan (UWMP) 2005 is utilized by the AWA for the management of the Agency's water supplies and water demands covering a range of normal and drought conditions. The UWMP provides information and protections regarding water supply availability and future water demands for AWA's four service areas.

City of Lone General Plan

The City of Lone General Plan includes the following goals and policies that would support provision of public services, including water.

- | | |
|------------|---|
| Goal 6.00 | Provide adequate public services to serve all city residents and businesses. |
| Policy 6.2 | On-site and off-site capital improvements necessary to service new development shall be provided by the new development. |
| Policy 6.3 | Ongoing service and maintenance of new development shall be allocated to the new development in proportion to the increased costs of service. |

15.0 WATER

Policy 6.4 Public facilities shall be located and improved such that they increase the efficiency of operations.

FOR MORE INFORMATION

Amador Water Agency. Urban Water Management Plan 2005.
<http://www.amadorwa.com/pdfs/AWA%20UWMP%202005.pdf> Accessed July 27, 2008.

Griffin, John. Supervising Engineer over New Development. Amador Water Agency.

Hebard, Tammy. Engineering Support. Amador Water Agency.

Jackson, City of. Jackson Home Depot Draft Environmental Impact Report. August 2007.

Jordan, Christopher. Planner, City of Ione. August 4, 2008.

This section provides a discussion of wastewater treatment and conveyance for the City of Lone Background Report, as well as a summary of the current wastewater generators in and around the City of Lone. The Planning Area beyond the City limits is currently undeveloped and is not served by municipal wastewater service.

16.1 BACKGROUND/EXISTING SETTING

Wastewater collection, treatment, and disposal in Lone is complex. The City of Lone operates two wastewater treatment plants (WWTPs): a secondary plant (the Lone Wastewater Treatment Plant) and a tertiary plant (Castle Oaks).

Lone does not have a primary treatment plant. Primary treatment is not a common treatment method for small plants which have secondary treatment. For smaller plants, such as Lone, it is easier and more cost efficient to send high biological oxygen demand sewage to the secondary system and treat it there rather than incur the expense of constructing a primary treatment system (Godwin, 2008a).

The secondary plant (Lone Wastewater Treatment Plant) is located at the corner of Old Stockton Road and Marlette Street. This plant currently treats City wastewater in seven ponds with aerated biological treatment in the first four ponds and a combination of evaporation-percolation disposal in the last four ponds (Pond 4 serves both as a treatment and percolation pond). The gross area of Ponds 1, 2, and 3 is approximately 5 acres. The gross area of Ponds 4, 5, 6, and 7 is substantially larger at 22.5 acres (Lee & Ro, Inc., 2007a).

The current flow to the treatment facility is approximately 0.41 million gallons per day (mgd) average dry weather flow (ADWF) based on 2003-2006 flow data. The capacity of the facility is 0.55 mgd ADWF (Lee & Ro, Inc., 2007b). As of October 2007, the City had a remaining treatment and disposal capacity of 700 EDUs (140,000 gallons per day) based upon 1,275 sewer connections. The number of connections as of October 2007 was 1,475, and remaining capacity at the Lone Wastewater Treatment Plant is estimated to be 500 EDUs (100,000 gallons a day) (Godwin, 2007). Based on expert opinion, 500 EDUs should be the maximum commitment by the City until a new facility is constructed (Godwin, 2007).

Wastewater flows to the plant consist of residential flows, backwash water from the Amador Water Agency-owned water treatment plant, and secondary effluent from the Amador County Regional Sanitation Agency (ARSA) and the Mule Creek State Prison. Each of these sources is described in more detail below.

The secondary treatment facility includes four percolation ponds. Two aerators are located in Pond 1 and one aerator is located in Pond 2. Solids treatment occurs in the treatment ponds. The disposal capacity of the percolation ponds is higher than the treatment capacity and is approximately 0.78 mgd. The excess capacity is reserved for ARSA. However, it should be noted that this capacity is only valid in the context of the current permit from the Regional Water Quality Control Board (RWQCB). The City's permit is currently under review and the existing facilities will not likely be adequate for the new permit requirements. At a minimum, the RWQCB has concerns regarding the potential leakage of water from the treatment ponds into the shallow groundwater and leakage from the percolation ponds into Sutter Creek (Lee & Ro, Inc., 2007a).

In addition to the two WWTPs discussed above, the City of Lone also owns and operates the Castle Oaks Water Reclamation Plant (COWRP), which receives secondary effluent from ARSA and Mule Creek during the summer months (Lee & Ro, Inc., 2007b). At this tertiary plant, the

16.0 WASTEWATER

water is treated to Title 22 Standards before it is used for irrigation of the Castle Oaks Golf Course. There currently are no facilities that would make it possible for the City to send lone's secondary effluent to the COWRP. Average flow to Castle Oaks for 2002-2006 was 532 acre-feet per year (AFY) (Lee & Ro, Inc., 2007b).

AMADOR WATER AGENCY (AWA) BACKWASH WATER

Filter backwash water from the lone Wastewater Treatment Plant averages 87,000 gallons per day (gpd) with a flow pattern that increases during winter periods due to the impact of precipitation on surface runoff (Lee & Ro, Inc., 2007a). While the backwash water represents approximately 20 percent of the volumetric portion of the total water treated at the plant, it is not a strong waste stream (Lee & Ro, Inc., 2007a). As a result, the backwash water's main adverse impact on the lone Wastewater Treatment Plant (IWTP) is related to the percolation and evaporation disposal capacity of the plant and the hydraulic limitations of the pumps and piping at the plant.

AWA has proposed the construction of a new regional water treatment plant at the current Tanner Water Treatment Plant site, located on Ridge Road in Martell. Once this project is completed, the IWTP will be decommissioned and backwash water from this plant will no longer enter the City of lone sewer system. The schedule for construction of the new Tanner facility and decommissioning of the IWTP is controlled by AWA, not the City of lone.

Secondary treated flows are discharged to the lone Wastewater Treatment Plant only for disposal in the percolation ponds. Effluent from Mule Creek and ARSA are combined in Preston Reservoir prior to discharge (Lee & Ro, Inc., 2007a).

CITY OF IONE/MULE CREEK/ARSA AGREEMENT

In the spring of 2007, the City entered into a three-party agreement with the State of California and the Amador County Regional Sanitation Authority (ARSA). This agreement replaced an earlier court settlement between ARSA and the City in 1990 and subsequent amendments, the most recent of which was in 2004. The significant impact of this new agreement is that the City will have their current obligation to accept 900 acre-feet of ARSA effluent permanently reduced to a maximum 650 feet per year (AFY). Discharge of effluent from Mule Creek Prison is included in the 650 AFY limit.

Six hundred and fifty (650) AFY will continue to be disposed of either at Castle Oaks Golf Course or in the City percolation ponds for the near term, set to begin when the agreement is signed. The new agreement provides a reduction of 250 AFY versus the regional agreement. All requirements for the City of lone to dispose of ARSA water in the percolation ponds will be discontinued four years after the date the agreement is signed. This will result in a further reduction in the City's disposal obligation by limiting the obligation to the disposal capacity of the Castle Oaks Golf Course. Also, the agreement includes an additional clause, invocable by either party, which provides that disposal of ARSA flows at Castle Oaks may be discontinued in five years by either ARSA or the City. The clause to discontinue disposal goes into effect upon the signing of the agreement. This new agreement will not go into effect until all parties have signed it (Lee & Ro, Inc., 2007a).

A summary of the existing City wastewater service obligation after the signing of the ARSA agreement is presented in **Table 16-1**, below.

**TABLE 16-1
WASTEWATER SERVICE OBLIGATIONS**

	Flow (Million Gallons per Day)	Flow (Acre-Feet per Year)
Ione Municipal Flow	0.32	359
AWA Backwash Flow	0.087	97
ARSA Effluent Disposal Commitment	0.58	650

Source: Lee & Ro, Inc., 2007a.

The disposal of 650 AFY of effluent mentioned in the agreement is equivalent to an approximate daily average flow of 0.58 mgd (Lee & Ro, Inc., 2007b). For comparison, current City municipal wastewater flows minus the AWA backwash flow are approximately 0.32 mgd. Disposal of secondary effluent flows from Mule Creek and ARSA have historically been as high as 800 AFY, or 0.71 mgd.

CASTLE OAKS DISPOSAL CAPACITY

Castle Oaks Golf Course occupies approximately 200 acres. Seasonal disposal capacity of this property is estimated to be between 410 and 540 AFY. This is equivalent to between 0.37 and 0.40 mgd, averaged over the entire year. The ability of the golf course to accept effluent depends on the season, the amount of rainfall, and the timing of that rainfall. The capacity of the COWRP is 1.2 mgd (Lee & Ro, Inc., 2007b). No excess capacity is available in the COWRP during portions of high irrigation demand.

CEASE AND DESIST ORDER

Cease and Desist Order (CDO) No. R5-2003-0108 for the City of Ione was adopted by the RWQCB on July 11, 2003, due to violations of the waste discharge requirements and failure to comply with staff enforcement letters. In response to the CDO, the 2004 Master Plan recommended installation of liners in the percolation ponds within 200 feet of Sutter Creek Channel. If this recommendation is implemented, the percolation capacity of the ponds could potentially be reduced to approximately 0.05–0.13 mgd (Lee & Ro, Inc., 2007a).

16.2 REGULATORY FRAMEWORK

STATE

State Water Resources Control Board – Basin Plan for the Central Valley Region

The Basin Plan for the Central Valley Region (the Basin Plan) concerns the entire area of the Sacramento and San Joaquin River drainage basins. The Basin Plan defines beneficial uses for both surface waters and ground waters in this region. Water quality objectives are established to protect those beneficial uses. The State Water Resources Control Board also regulates the use of recycled water through RWQCB.

Regional Water Quality Control Board – Waste Discharge Requirements

A Waste Discharge Requirements (WDR) permit is typically required for any facility that discharges or proposes to discharge waste that may affect groundwater quality. This may

16.0 WASTEWATER

include systems that have waste storage systems with land disposal, such as seasonal storage and reuse. Potential dischargers must file a complete Report on Waste Discharge with RWQCB at least 120 days prior to discharging waste. In addition, a Report on Waste Discharge must be submitted for onsite septic systems at residential subdivisions of over 100 homes. Issuance of a WDR permit is based on information provided in the Report on Waste Discharge. A WDR permit may set effluent standards for activities that do not pose a threat or nuisance to water quality.

City of Lone Wastewater Master Plan

The City of Lone adopted a Wastewater Master Plan on November 30, 2004. The Master Plan included various wastewater treatment and disposal options to address the City's need for additional wastewater treatment capacity. The City is currently in the process of selecting a preferred alternative for expansion of the lone Wastewater Treatment Plant to increase capacity between 0.75–0.80 million gallons per day to meet development identified in the current General Plan (Godwin, 2008b). A variety of alternatives are being considered to increase plant capacity. To date, the City has not identified the preferred system (Jordan, 2008). However, the existing treatment plant will likely be expanded or replaced at the existing site and the capacity of the current tertiary treatment plant on the north side of Sutter Creek will be expanded to supply more recycled water to future and existing customers.

City of Lone General Plan

The City of lone General Plan includes a goal and policies regarding public services.

6.00 Goal: Provide adequate public services to serve all city residents and businesses.

Policy 6.1: Areas designated for industry shall have all necessary services available, and proper access to circulation routes.

Policy 6.2: On-site and off-site capital improvements necessary to service new development shall be provided by the new development.

Policy 6.3: Ongoing service and maintenance of new development shall be allocated to the new development in proportion to the increased costs of service.

FOR MORE INFORMATION

Lee & Ro, Inc. City of Lone Technical Memorandum Wastewater Treatment and Disposal. October 4, 2007a.

Lee & Ro, Inc. Wastewater Disposal and Treatment Capacity, City of Lone WWT. Technical Memorandum from Robert O. Goodwin to George Lambert. May 4, 2007b.

City of Lone, 1982. City of Lone General Plan and Environmental Impact Report.

Jordan, Christopher. City of Lone Planner. 2008.

Godwin, Robert. 2007. Lee & Ro, Inc. Letter to Kim Kerr, City Manager RE: Wastewater Disposal and Treatment Capacity of the lone Wastewater Treatment Plant. November 2007.

Godwin, Robert. 2008a. Lee & Ro, Inc. E-mail RE: Ione Wastewater Treatment Plant Treatment methods. July 29, 2008.

Godwin, Robert. 2008b. Lee & Ro, Inc. E-mail RE: Ione Wastewater Treatment Plant Capacity. June 13, 2008.

This section describes the provision of solid waste services in the City of Ione and the Planning Area. The Planning Area is currently undeveloped and does not receive wastewater pick-up or disposal.

17.1 BACKGROUND/EXISTING SETTING

Solid waste collection services are provided to Ione residents by the Amador Disposal Service as well as the Amador County Environmental Services (ACES). Garbage collection is currently contracted on a voluntary basis. However, the Amador County Board of Supervisors is considering making garbage service collection mandatory. Waste that is collected by the Amador Disposal Service is taken to the Western Amador Recycling Facility (WARF) located at 6500 Buena Vista Road in Ione. Recyclable materials are sorted out at the WARF and residual waste is disposed of at the Forward Landfill in Manteca. The Forward Landfill has approximately 40 million cubic yards of remaining capacity (CIWMB, 2008a). Waste collected by ACES is disposed of at the Kiefer Landfill in eastern Sacramento County. Currently, the Kiefer Road landfill is operating below permitted capacity and has approximately 112.9 million cubic yards of capacity remaining (CIWMB, 2008b).

17.2 REGULATORY FRAMEWORK

STATE

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000, and beyond. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. The City's refuse and recyclable materials are currently being separated at the WARF as described above.

LOCAL

Amador County Integrated Solid Waste Management Regional Agency

The Amador County Integrated Solid Waste Management Regional Agency (RA) is an intergovernmental agency that allows Amador County and the cities of Amador City, Jackson, Ione, Sutter Creek, and Plymouth to meet the legal mandates of Assembly Bill 939, which established waste reduction requirements for cities and counties. Now, due to these mandates and increased state regulatory oversight, the RA must implement additional waste reduction programs and services. To fund the required activities and avoid state-imposed financial penalties, the RA has recommended that the County and each city implement a waste reduction surcharge of 50 cents per month for residents with curbside service and \$1.00 per month for commercial curbside subscribers, effective September 1, 2003 (Amador County, 2008).

17.0 SOLID WASTE

FOR MORE INFORMATION

Amador County. 2008. <http://www.co.amador.ca.us/Depts/waste/index.cfm?id=4>

CIWMB, 2008a. <http://www.ciwmb.ca.gov/SWIS/detail.asp?PG=DET&SITESCH=39-AA-0015&OUT=HTML>

CIWMB, 2008b. <http://www.ciwmb.ca.gov/SWIS/detail.asp?PG=DET&SITESCH=34-AA-0001&OUT=HTML>

California Integrated Waste Management Board.
<http://www.ciwmb.ca.gov/swis/Detail.asp?PG=DET&SITESCH=39-AA-0015&OUT=HTML>

18.0 GAS, ELECTRICITY, CABLE AND TELEPHONE

This section identifies gas, electricity, cable and telephone services in the City of Ione and the General Plan Planning Area. Currently, the areas outside the City limits are undeveloped and have limited gas, electricity, cable and telephone infrastructure.

18.1 BACKGROUND\EXISTING SETTING

GAS AND ELECTRICITY

Both gas and electric service are provided to the City of Ione and the Planning Area by Pacific Gas & Electric Company (PG&E). PG&E is an independent, investor-owned company focused on retail electricity and natural gas distribution to its customers in Northern and Central California. PG&E is regulated by the California Public Utilities Commission.

PG&E currently has both gas and electrical transmissions lines in this portion of Amador County. PG&E also owns a gas pipeline that connects the City with county gas sources. Transmission lines generally follow transportation corridors and are routed above ground throughout much of the City and the Planning Area. Pursuant to Public Utility Commission regulations, new development is required to place electricity infrastructure underground (City of Ione, 1989). Industrial users, such as North American Refractories and Owens-Illinois, tie directly into major transmission lines adjacent to plant sites.

CABLE TELEVISION/INTERNET

The City of Ione and the Planning Area are entirely within the service area of Volcano Vision. A local provider of digital cable, HDTV, DVR, and high speed internet, Volcano Vision's service area includes portions of Amador and Calaveras counties.

TELEPHONE

Telephone service in the City of Ione and the Planning Area is provided by AT&T.

18.2 REGULATORY FRAMEWORK

STATE

California Public Utilities Commission

The California Public Utilities Commission (PUC) regulates investor-owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. PUC is responsible for ensuring that California utility customers have safe, reliable utility service at reasonable rates and for protecting utility customers from fraud. PUC establishes service standards and service rules and authorizes utility rate changes as well as enforcing CEQA for utility construction. PUC also regulates the relation of power lines by public utilities under its jurisdiction such as PG&E. PUC works with other state and federal agencies to promote water quality, environmental protection, and safety (Jones & Stokes, 2007).

FOR MORE INFORMATION

City of Ione. City of Ione General Plan and Environmental Impact Report. 1982.

18.0 GAS, ELECTRICITY, CABLE AND TELEPHONE

Jones & Stokes. 2007. Final Tribal Environmental Impact Report for the Buena Vista Rancheria of Me-Wuk Indians of California Gaming and Entertainment Facility. May 2007.

Volcano Vision. <http://www.volcanocommunications.com/Default.aspx?tabid=418515>
Accessed June 26, 2008.

This section provides a discussion of parks and recreation for the City of Ione Background Report, including a description of any existing facilities within the City. The areas outside the City limits within the Planning Area are currently undeveloped and do not contain park facilities.

19.1 BACKGROUND/EXISTING SETTING

The City of Ione’s recreational facilities include four small parks with benches and historical exhibits and one major recreation facility. The small parks include Oak Ridge Park, Schmidt Park, Train Park at City Hall, and Pioneer Park (City of Ione, 1982). Howard Park is the major recreational facility and includes soccer fields; softball, baseball and little league diamonds; half-court basketball courts; tennis courts; a Bocci ball court; a playground; and a roller hockey area. In addition, a variety of equestrian facilities are located at the park including stables, corrals, an arena, and a racetrack. The Castle Oaks Golf Course provides an 18-hole championship golf course (<http://www.ione-ca.com/home/ione/recreation.htm>).

The City of Ione currently maintains a total of 93.5 acres of park land. This includes six parks of various sizes as discussed above and shown in **Table 19.0-1** below.

**TABLE 19.0-1
SUMMARY OF PARKS AND FACILITIES IN THE CITY OF IONE**

Park Site	Acres	Park Type
Grove Size	2.0	Neighborhood Park
Heath Knoll	0.2	Landscape Area
Perry Earl Park	1.0	Neighborhood Park
Howard Park	89.7	Community Park*
Train Park	0.3	Neighborhood Park
Oakridge Park	0.3	Neighborhood Park

Source: ACRA, 2006

* Classified as a Community Park but in terms of size and function acts as a Regional Park.

Total parkland needs are most often expressed in terms of acres per 1,000 population. In the Sacramento area, most communities average 4–8 acres of active parkland per 1,000 population. The City of Ione has established a park requirement of 5 acres of parkland for every 1,000 population. Currently, the City has an average occupancy of 2.68 persons per household (City of Ione Housing Element, 2004). According to the Amador County Parks and Recreation Master Plan, the City of Ione has a ratio of 12.3 acres of parkland for every 1,000 population (based on a population of 7,613, as identified in the Amador County Parks and Recreation Master Plan).

19.2 REGULATORY FRAMEWORK

LOCAL

Amador County Recreation Agency

The Amador County Recreation Agency (ACRA) was formed in response to growth in the county that spurred the need for more park and recreation services. Following its inception, ACRA developed a strategic policy for meeting future park and recreation needs. The outcome of this

19.0 PARKS AND RECREATION

strategy is the document called the Amador County Park and Recreation Master Plan (the Plan). The role of the plan, in part, is to define a strategic role for ACRA with regard to park and recreation services. ACRA currently provides limited recreation programs and park maintenance to some of the county park sites. ACRA’s primary role with the cities has been to provide professional advice on park operations (ACRA, 2006).

City of Ione

The City of Ione has a Parks and Recreation Commission that is responsible for overseeing matters regarding park and recreation facilities in the City. In addition, the City’s General Plan includes a goal and associated policies which address recreation.

- Goal 7.0 Provide recreational opportunities for all members of the community.
- Policy 7.1 Actively pursue expansion of community recreation through planning and construction of additional recreational facilities.
- Policy 7.2 New development should provide for recreational facilities to meet the needs of the intended population.
- Policy 7.3 Identify sites for future recreation opportunities.
- Policy 7.4 Determine recreational needs through citizen involvement.
- Policy 7.5 Recreational areas shall be designated in order to maintain the open and rural character of the city.

FOR MORE INFORMATION

City of Ione. 1982. City of Ione General Plan & Environmental Impact Report.

City of Ione Recreation website. <http://www.ione-ca.com/home/ione/recreation.htm>.

Amador County Recreation Area (ACRA). Amador County, California. *Draft Park and Recreation Master Plan*. October 2006.
http://www.co.amador.ca.us/depts/acra/documents/rec_plan_intro.pdf
 and Chapter 3, Existing Parks and Facilities
http://www.co.amador.ca.us/depts/acra/documents/rec_plan_chap_3.pdf