

12. PUBLIC FACILITIES

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A. INTRODUCTION

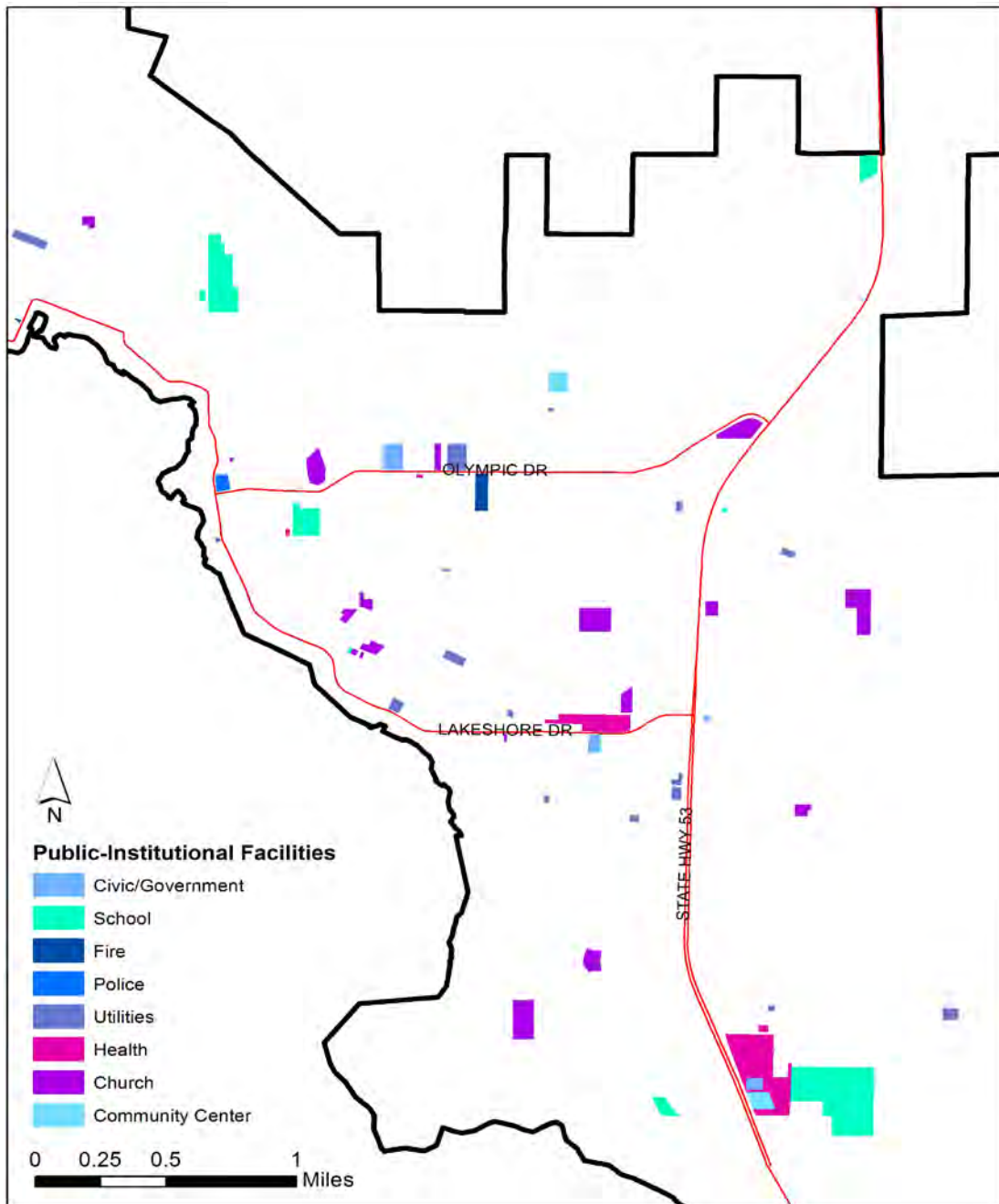
Public facilities create strong communities by building public infrastructure that supports community health and provides important services to a city. These facilities are foundational to communities because they establish a backbone of services that deliver water, power, waste management, telecommunications, health, education, and emergency protection services. In addition, the quality of community life is enhanced by the quantity and location of these facilities.

Every city must plan accordingly to identify factors that lead to capital improvement and public service needs. The California Office of Planning and Research's (OPR) General Plan Guidelines suggest that a public facilities element be implemented in a city's General Plan to provide the policy basis for short-term documents, such as city's capital improvements program and the annual capital budget. According to OPR, the public facilities element should also offer generalized long-term policies to address existing capacity, future demand, and financing options for capital improvements of public infrastructure, facilities, and services (Office of Planning and Research, 2003).

OPR recommends that cities create guidance for public facilities' policy and program development through an evaluation of current and future capacities of public infrastructure and support programs crucial to the city's overall function and healthy growth. By creating an enhanced public facilities element for the General Plan, the City of Clearlake provides a policy basis to guide programs that address capital improvements, infrastructure, and community services. This chapter provides background information on the City's existing public facilities as a foundation for developing an enhanced General Plan element. Figure 12.1 identifies the locations of public facilities in Clearlake.

The Public Facilities Element draws on numerous other elements within the General Plan. City capital improvement projects include creation and repair of roads, drainage facilities, sewer and water lines, and transit system. The availability of these public services plays a role in determining land use within a community. The services also relate directly with circulation and transportation needs. Public facilities such as police and fire stations, city offices, libraries and parks play a role in safety, economic development and quality of life for residents (Office of Planning and Research, 2003).

Figure 12.1 Map of Public Facilities



Cal Poly Land Use Survey, 2012

B.EXISTING CONDITIONS

1. Utility Services

Water Service

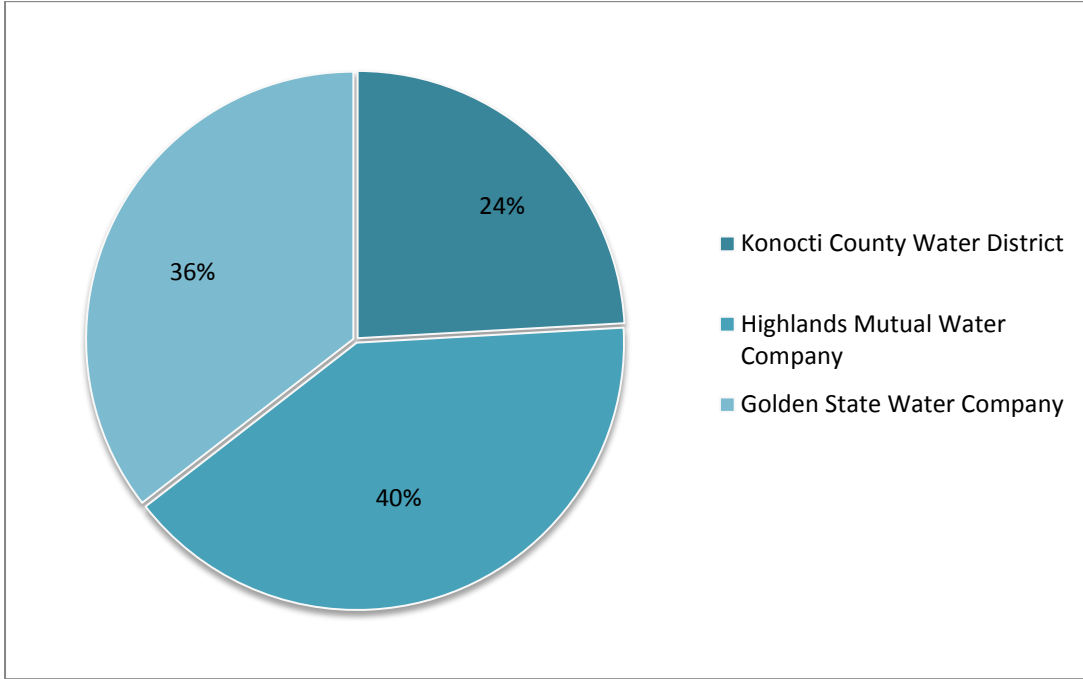
A mixture of public and private service providers treat and deliver water to Clearlake. The City relies upon special district services from the County, as well as private suppliers to deliver water to residents. Water supply and wastewater treatment, and the supporting infrastructure, are vital elements to a properly functioning city. They support current needs, provide safe sources of water, and enable future growth and development. The water utility service data in this section outlines current purveyors, the infrastructure provided for transport, the capacity of transport, and the existing conditions of the local community in relation to the special districts and the region as an integrated system. Although the Public Facilities element analyzes capacity, adequate service, and infrastructure, further information regarding water quality, current demand, and demand projections are addressed in Chapter 7, Conservation.

The 2005 LAFCO Municipal Service Review (MSR) identified the water purveyors for the City of Clearlake. Water service is provided by the following public and private entities:

- California Cities Water Company- Golden State Water Company (Public Utility)
- Highlands Mutual Water (Water Company)
- Konocti County Water District (County Water District)
- Lower Lake County Waterworks District #1 (the area is very small and is located in the southernmost portion of the City north of Cache Creek)

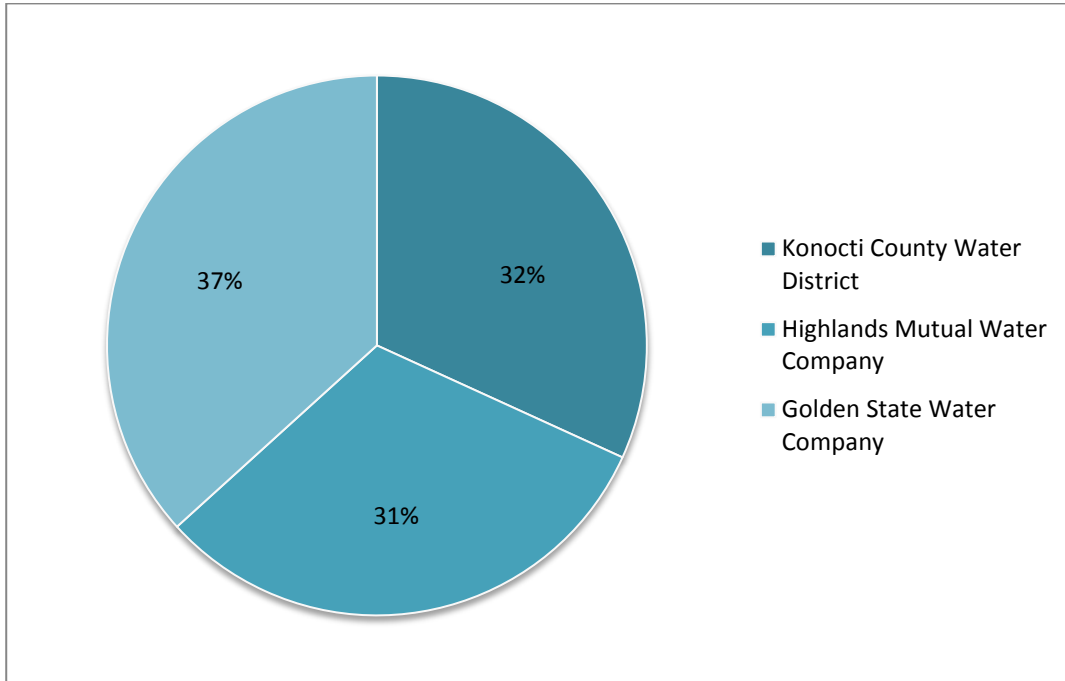
Figures 12.2 and 12.3 depict shares of service connections and population respectively by providers of potable water. Figure 12.4 identifies the coverage areas of the water service providers.

Figure 12.2 Service Connections in Clearlake



LAFCO MSR, 2005

Figure 12.3 Service Population in Clearlake



LAFCO MSR, 2005

Golden State Water Company

Golden State Water Company is a public utility that serves the western portion of the City (between Sycamore Street to the east and the southeastern shore of Clear Lake to the west) as well as a non-contiguous, seven-block segment of the central portion of the City. Water from this particular utility is sourced from the surface water of Clear Lake, which is treated at Golden State Water Company's Sonoma Water Treatment Plant. An intake is located along the lake shore, and water is pumped up to the treatment plant located within City boundaries. Golden State Water Company services a population of 5,195 people and provides a total of 2,171 service connections to residential and non-residential customers.

Improvements to this system are managed in an ongoing capital improvement plan, mainly focused on replacing old water mains in the Clearlake area. On an annual basis, 2 to 3 water mains are to be changed, based on their age and condition. A variety of miscellaneous improvements to pumping stations are also identified in the capital improvement plan. No deficiencies in water service were identified.

The water from these facilities underwent water quality testing in 2011 and reported the presence of contaminants at levels that are stated as being under the Maximum Contaminant Level (MCL). Further information can be found in Chapter 7 of the Background Report on Conservation.

Highlands Mutual Water Company

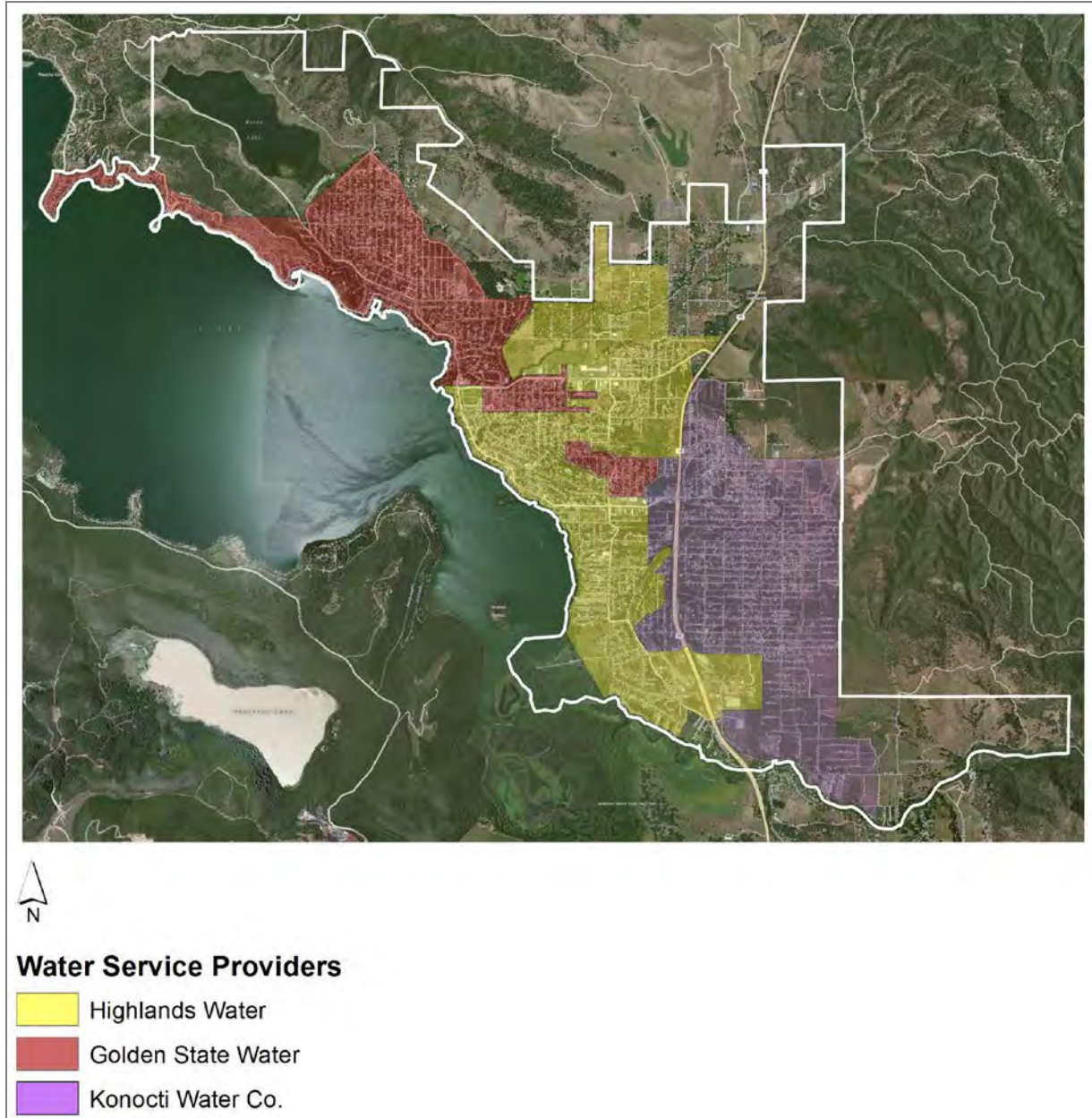
Highland Mutual Water Company is a private water provider that delivers water to the central portion of the City (between the southeastern shore of Clear Lake to the west and Highway 53 to the east). This private utility serves a population of 4,452 people with water via a total of 2,470 service connections to residential and non-residential customers. No improvements to this system were identified.

Konocti County Water District

The Konocti County Water District is a County Water District that provides water to the eastern portion of the City (between Highway 53 to the west and roughly the eastern edge of the City). This special district serves a population of approximately 4,500 and provides approximately 1,474 total service connections to residential and non-residential customers. No improvements to this system were identified.

Very little information was available with regard to the service territory covered by Lower Lake Waterworks District #1. It is suspected that only a few parcels within the boundary of the City are served by Lower Lake Waterworks District #1.

Figure 12.4 GIS Map of All Service Area Provider Territory



Cal Poly Planning Team, Highlands Water Company, 2012

Wastewater Service

The City is served by the Lake County Sanitation District's Southeast (SE) Regional System, which collects and treats wastewater in the Clearlake area. Figure 12.5 identifies various waste water treatment areas in the region. Additionally, parts of the City remain on septic systems, specifically the northern part of the City that is served by Highlands Mutual Water Company, the Parkwood subdivision area (northwest portion of the city), and a portion of the City parallel to Slater Island and Garner Island in the southern area of the City.

The SE collection system extends from Pirates Cove to Lower Lake and includes the City of Clearlake. Due to the proximity to the lake and seasonal high water table, a significant amount of groundwater intrusion occurs within the system during the winter. Inflow and Infiltration (I/I) are impacted by seasonal high lake levels and winter rains, comprised of a large percentage of winter flows. The lift stations then operate more frequently in the winter, and almost continuously during multi-day storm events. During more intensive storm events, the Sanitation District typically hires an emergency pump truck to maintain collection system operations, and to avoid and minimize reportable spill events. A current force main project is designed to address winter flow issues and improve performance throughout the system. All treated wastewater is recycled at the geothermal plant to the south, known as the “Geysers.”

The Southeast Regional Wastewater Collection and Treatment System serves 7,850 connections, and a population of 17,503 residents. Over 1,950 manholes span 100 miles of collection system piping. Supporting infrastructure for this service also includes twenty-two lift stations and over thirteen miles of force main piping, conveying wastewater flows to the Southeast Treatment Plant. Table 12.1 has additional details.

Table 12.1: Southeast Treatment Plant Information	
Treatment Plant Type	Aerated Lagoons
Dry Flow	1.9 MGD
Wet Flow	6.1 MGD
Collection Area	Clearlake/Lower Lake (AD 1-1 thru 1-7)
Connections/Population	7,850/17,503

Lake County Website, 2010

Wastewater Treatment Problems

According to a 2010 update on the Lake County website:

“Community growth is resulting in capacity challenges (both collection and pumping) in several key locations within the system. The 12-month averaged increase (2011) in the customer base in the SE service area was less than 1%. In February of 2005, the Regional Water Quality Control Board issued a Cleanup and Abatement Order for the SE system. The Order covers 12 requirements, which must be implemented over a period of three years. The District is working diligently to fully comply with that Order while continuing to serve all customers. Much of our focus is on source control, I/I reduction, and line cleaning.”

Additionally,

“The District is moving forward with aggressive I/I mitigation and Hydraulic Modeling for evaluating structure and capacity within the SE collection system. The model evaluates storage capacity and flow within the main sections of the trunk line serving the collection system. The model can be expanded into additional locations within the service area for evaluating impacts associated with new development. According to the Master Plan (December 2005), the service area has a potential capacity of 14,641 connections.”

Figure 12.5 Waste Water Treatment Areas



Lake County Website, 2010

Regulatory Framework

Standards for wastewater treatment require all projects greater in size than three Single Family Dwelling Equivalents (SFDs) to utilize the SE model. The model is capable of identifying the areas within the collection system that require infrastructure improvements for future development, as well as identify capacity mitigation measures and costs, and shared costs for infrastructure replacement based on percentage of use. A main deficiency identified within the water treatment system is the age of the infrastructure. Parts of the collection system were built over 30 years ago and materials and construction techniques have changed significantly since that time.

The Full Circle Project is a clean water initiative throughout Lake County. The main purpose of this project is to sustain Clear Lake as one of California’s premier water bodies through maximization of water reuse projects, minimization of wastewater discharge, and integration of community infrastructure with economic development and environmental restoration programs. The recycling of effluent to The Geysers is one such program of The Full Circle Project. The Full Circle project is also discussed in The Energy subsection, as wastewater effluent is used as a water source to maintain steam levels for geothermal production.

Communications

Communications services are an essential part of modern life. Provision of phone, cable, and Internet capabilities is important for general communication as well as doing business, encouraging economic development, and providing a high standard of living for area residents. Communications services are delivered by Comcast and AT&T.

Although they are privately owned, the closest telecommunications infrastructure (cell towers are cited here) to the City are located in the communities of Lower Lake and Clearlake Oaks. Table 12.2 summarizes their location and distance from the city.

Distance	Licensee	Address	Location
4.8 miles	Cellco Partnership	225 Round Mountain Road	Clearlake Oaks
7.3 miles	California Rural Service Area #1, Inc.	3608 Hilltop Road	Lower Lake

Find The Data, 2012

Although operated as private entities, the public benefits of telecommunication services are widely felt. Standards for telecommunication service vary between urban and rural centers. The planning team suggests that the City research a rural project known as Digital 395, in order to learn more about rural telecommunications development. Digital 395 is a project that aims to develop telecommunications infrastructure to the region along Highway 395 between Carson City, NV and Barstow, CA, an area that currently has

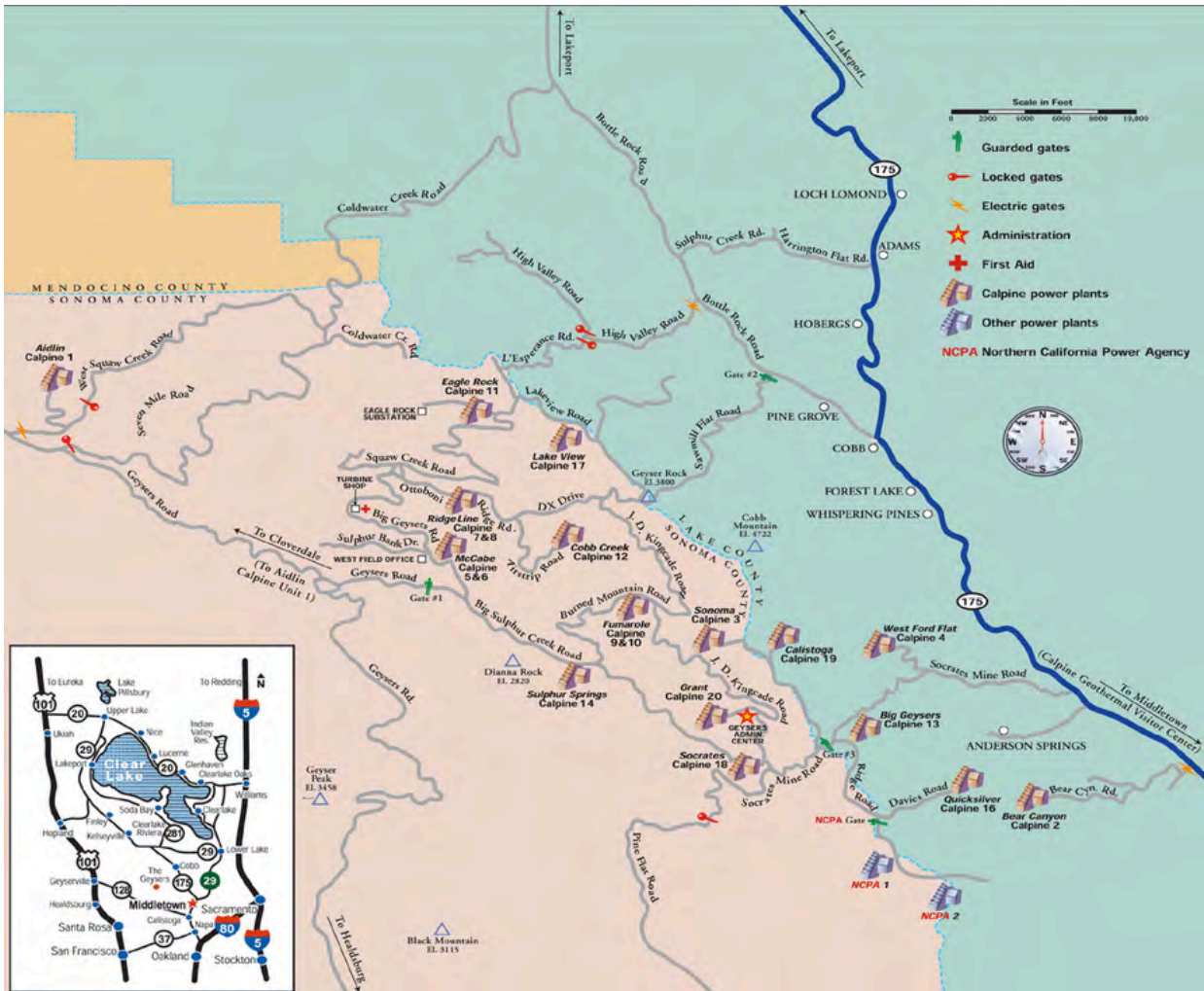
limited, insufficient broadband and middle-mile capabilities. The telecommunications system is dependent on decades-old telephone infrastructure, leaving many areas under-served. Unused, high-capacity fiber will be available to the region’s “last mile” providers in order to expand or enhance service to households and businesses, as well as to government agencies or carriers seeking local or long haul transport. Visit www.digital395.com for more information on standards of development.

Energy

Pacific Gas and Electric Company (PG&E), a subsidiary of PG&E Corporation, provides electricity to the City. With a total service area of 70,000 square miles in northern and central California, PG&E serves approximately 15 million people. PG&E’s energy production from 2009 to 2011 is shown in Table 12.3. According to 2008 records, electric power produced by PG&E is broken down by the following sectors: Natural Gas (39%), Nuclear (22%), Hydroelectric (16%), Renewable (14%), Coal (8%), and other (1%). Renewable sources consisted of Geothermal (34%), Biomass and Waste (32%), Small Hydroelectric (20%), Wind (14%), and Solar (< 1%) (Pacific Gas and Electric Company, 2011). PG&E purchases over 375 Mega Watts (MW) from the Calpine Geysers power operation southwest of Clearlake. 375MW powers roughly 450,000 homes. Table 12.3 identifies power plants in the vicinity of Lake County.

	2009	2010	2011
Total Electricity Generated (GWh net)	28,114	32,168	35,353
Fossil-Fuel Plants (GWh net)	3,042	3,681	5,105
Humboldt Bay Power Plant (GWh net)	552	384	N/A
Humboldt Bay Generating Station (GWh net)	N/A	130	469
Gateway Generating Station (GWh net)	2,490	3,099	2,648
Colusa Generating Station (GWh net)	N/A	68	1,981
Fuel Cells	N/A	N/A	7
Other plants (GWh net)	25,072	28,488	30,248
Diablo Canyon Power Plant (GWh net)	16,265	18,431	18,566
Hydro Facilities (GWh net)	8,806	10,053	11,654
“Eligible” Hydro (GWh net)	1,102	1,144	1,249
Solar Facilities	0.5	4.6	28
Electricity Purchased (GWh)	37,165	40,676	36,762
Other Electric Supplies (GWh)	14,346	4,640	2,748
Bundled Retail Electricity Sales (GWh)	79,624	77,485	74,864
Total Natural Gas Throughput (million cubic feet)	844,675	842,343	804,255

Figure 12.6 Energy Infrastructure



Calpine, 2012

There is no natural gas service provided in Clearlake, as well as no high transmission lines provided by PG&E. There are no plans to extend natural gas service to the City. While the centralized natural gas infrastructure system can be beneficial, it is hazardous to have underground gas lines, especially in the presence of earthquakes. This is discussed further in the seismic section of Chapter 10, the Background Report on Safety. Most City structures rely on individual propane tanks to provide gas.

Regulatory Framework

The California Public Utilities Commission regulates all energy service providers in the State. The Energy Action Plan (EAP), adopted in 2005 and updated in 2008, outlines the State's energy policies and the restrictions set by the passage of The Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32). AB 32 set a cap on greenhouse gas emissions in California in order to reduce emissions to 1990 levels by 2020. In 2005, electricity generation was responsible for 25 percent of greenhouse gas emissions in

California (California Energy Commission, 2008). In addition to the cap on emissions in the process of energy generation, energy providers must meet the California Renewables Portfolio Standard (RPS) established in 2002, which requires 20 percent of energy retail sales to come from renewable resources by 2010.

PG&E identifies a series of objectives that align with the EAP's action areas:

- Energy efficiency
- Demand response
- Investing in renewable energy
- Electricity and natural gas infrastructure
- Research and development of clean energy solutions
- Monitoring the impact of climate change on energy production and demand

PG&E's long-term procurement plan relies on demand-side resources, prioritizing customer energy efficiency and the use of renewable resources, and clean fossil fuel generation. In 2008, PG&E estimated that energy efficiency and customer-owner solar would meet demand growth over the next 10 years. Instead of growing at an average rate of 2 percent per year, such measures would reduce demand growth to 1 percent per year between 2009 and 2018 (Pacific Gas and Electric Company, 2011). This means that Clearlake residents' energy will come from increasingly cleaner sources in the future.

Wastewater and Energy

Wastewater reuse is a Special Districts initiative to recycle treated effluent for creation of wildlife habitat, irrigation of agricultural lands, and generation of geothermal power. Special Districts utilize effluent from local communities to power steam production and power generation at the regional geothermal plant, the Geysers. This unique process allows local agencies to maximize the energy, environmental, and economic benefits that wastewater reuse can achieve for Lake County.

Effluent Recycling Pipeline

The wastewater reuse system utilizes a 50-mile pipeline that collects effluent from ten communities for injection in the Geysers geothermal steam field. Pipeline construction was divided into two phases: 1) connection between the Southeast Regional and Middletown treatment plants and the Geysers and 2) connection between the Clearlake Oaks and Northwest Regional treatment plants to the Geysers.

According to the County website, "the system's first phase delivers an average of 5,400 gpm to geothermal injection wells operated by the Northern California Power Agency (NCPA) and Calpine Corporation. These industry partners have achieved a 70 MW increase in generating capacity since Phase 1 operations began. Phase 2 has increased effluent injection volume by approximately 20% in normal weather years, and by as much as 150% in drought years (2010). The proposed "Full Circle" project would complete the pipeline circle around Clear Lake and connect the two remaining

wastewater treatment facilities. This project has a dual benefit of reducing the effluent needing treatment in wastewater treatment facilities operating beyond capacity, but acts as a water source into the geysers to maintain the geothermal productive capacity at the Geysers facility, which draws surface water from Clear Lake to maintain adequate steam capacity.

2. Health and Safety Services

Storm Water

Storm drainage serves the purpose of providing ease and safety in the use of streets to prevent damage from flooding. Under intense built environmental conditions, an inability for water to permeate paved surfaces, such as a road, causes a negative shift in the way water naturally drains and recharges ground water basins. Additionally, storm water runoff can contain oil, grease, chemicals, nutrients, yard debris, metals, and litter; which can severely impair water quality. When left unmanaged, storm water runoff degrades local waters. The speed and manner in which water runs off surfaces also poses significant problems with regard to flooding, erosion of infrastructure including roads, erosion of stabilizing soils, and water quality.

Historically, the City has developed in the downstream area of the Clear Lake watershed near the point of disposal of runoff waters. With development of upstream areas, the amount of damage and flooding that can occur to downstream areas can be overwhelming (Bashford, 1994). Many of the referenced background report documents regarding water management discuss managing storm water in a manner that involves more than rapid disposal of water from built surfaces. This issue is addressed in Chapter 10, the Background Report on Safety, in a section on floods.

Regulatory Framework

Drainage management zones were identified in a 1994 Storm Drainage Master Plan. Eight key drainage areas in the City were identified as the following: the northwest area of the City, Borax Lake, Highlands Park, Burns Valley, the downtown, Molesworth Creek drainage, an unnamed creek south of Molesworth Creek drainage, and areas which surround Cache Creek (Bashford, 1994).

Storm water is managed through an incomplete system of drains and culverts that direct water from the City into Clear Lake. The land use inventory performed as a precursor to this report, and a subsequent qualitative assessment of storm water management based on road quality, found that storm water is not managed on unpaved roads, while an incomplete management system is found on paved roads. The City has several creeks and open drainage ditches that require annual cleaning to prevent and reduce flooding. There is no GIS information available for the storm drain systems in the City, making any formal assessment of the City's system difficult.

The City of Clearlake is included in Lake County’s Water Management Plan and is a co-permittee with Lake County and the City of Lakeport for the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit. The construction, maintenance, and monitoring of storm water infrastructure is managed jointly by Lake County, the City of Lakeport, and the City of Clearlake under the Lake County Clean Water Program. For a discussion of wastewater and the impact on water quality, see Chapter 7, Conservation. The Lake County Clean Water Program is directed by a storm water management plan from 2003, which permits municipal storm water discharge, provided the municipality mitigates those impacts by using a series of ‘Best Management Practices’. Those practices are outlined as follows:

- Public Education, Outreach and Participation (PEOP) Workgroup is responsible for development of materials and products, technical workshops, marketing, public outreach and public involvement with input from the other workgroups as appropriate.
- Illicit Discharge Detection and Elimination Workgroup (IDDE) is responsible for the development and implementation of a program to detect, address and/or eliminate illicit discharges including illegal dumping.
- Construction Site Storm water Runoff Control Workgroup (CON) is responsible for development and implementation of a program to control the discharge of pollutants from construction sites.
- Post Construction Storm water Management Workgroup (PCON) is responsible for the development and implementation of long-term development measures for post construction storm water management in new development and redevelopment projects.
- Storm water Management Workgroup and the Post Construction Storm water Management Workgroup meet concurrently.
- Municipal Operations Workgroup (MUNI) is responsible for evaluating municipal maintenance activities and developing a program to prevent the discharge of pollutants from these activities. (Storm Water Management Plan: Lake County Clean Water Program, n.d.)

At the time of this Background Report, a Westside Sacramento Integrated Regional Water Management (IRWM) Plan was being written by the following organizations: Lake County Watershed Protection District, Napa County Flood Control and Water Conservation District, Solano County Water Agency, Water Resources Association of Yolo County, and Colusa County Resource Conservation District. Collectively, the planning area for the Plan includes 9 cities and more than 70 special service districts. For

planning purposes, the plan area is subdivided into three areas: Upper Cache Creek, Lower Putah Creek, and Lower Valley Floor.

Ultimately, the IRWM Plan will support local and regional efforts to secure grant funding for projects identified as part of the planning process. This plan is expected to be complete at the end of 2012 and addresses the following from a regional perspective:

- Water supply reliability
- Water conservation
- Water quality improvement
- Storm water management
- Flood management
- Invasive species abatement
- Mercury contamination cleanup
- Wetlands enhancements and protections
- Environmental and habitat improvements and protections

The planning team advises the City to pursue additional research on the IRWM as the plan is developed. Upon completion this Plan will impact and inform the decisions the City makes in regards to storm water management as well as addressing water quality, supply, and demand into the future.

Solid Waste

Waste Management

C&S Waste Solutions is the contract waste hauler for Clearlake. C&S provides weekly curbside solid waste pick-up in 20 to 96 gallon cans. Recycling and green waste cans are 96 gallons each. Each resident is allowed free pick up of oversized items, such as a couch or refrigerator, twice per year. Services for commercial and multifamily units include solid waste collection and recycling (C&S Waste Solutions, 2012).

Hazardous waste is prohibited in garbage carts, green waste, or debris boxes. Lake County Public Services Department takes hazardous materials such as paints, thinners, pesticides, and electronic waste.

C&S also serves unincorporated areas within Lake County, including Riviera West, Riviera Heights, Soda Bay, Kelseyville, and unincorporated areas around Lakeport, Scotts Valley, Blue Lakes, Witter Springs, Lake Pillsbury, Upper Lake, Nice, Lucerne, Glenhaven, Clear Lake Oaks and Spring Valley. Three other haulers serve the rest of Lake County: Waste Solutions, South Lake Refuse, and Lakeport Disposal.

Landfill and Recycling Facilities

The majority of solid waste in Clearlake is taken to Eastlake Landfill, located at 16015 Davis Street just east of the City. South Lake Refuse and Recycling Center is next to the

landfill and shares the same address. Quackenbush Mountain Resource Recovery and Compost Facility is nearby at 16520 Davis Street and is used by South Lake Refuse to deliver green waste.

Eastlake Landfill is a Class II facility and is the only disposal facility in the County. Table 12.4 shows the source of waste imported to the Eastlake Landfill by jurisdiction between 2005 and 2011. Lakeport Transfer Station, at 910 Bevins in Lakeport, was shut down in 2009 in order to reduce operational costs. Eastlake is allowed to accept a maximum of 200 tons per day with a total maximum capacity of 6,050,000 cubic yards (CIWMB, 2008 as cited in Lake County, 2008). The landfill has about 2,000,000 cubic yards of remaining capacity, approximately 33 percent of its maximum capacity (Clymire, 2007 as cited in Lake County, 2008). Based on population projections and its remaining capacity, the anticipated closing date of the landfill is in 2027 (CIWMB, 2008 as cited in Lake County, 2008). Table 12.5 shows total waste collected in the City in 2011. A small portion of waste from Clearlake is disposed of in Forward Landfill, located in Manteca, CA and Recology Ostrom Road LF Inc. in Wheatland, CA.

	2005	2006	2007	2008	2009	2010	2011
Clearlake	11,881	13,065	16,040	11,359	9,702	10,624	10,242
Lakeport	4,621	5,678	6,740	5,857	4,279	3,600	2,711
Lake-Unincorporated	31,710	34,728	28,872	30,086	27,431	26,606	27,615
Annual Total	48,212	53,471	51,652	47,302	41,412	40,830	40,568
<i>CalRecycle, 2012</i>							

Destination Facility	Instate (Ton)
Eastlake Sanitary Landfill	10,242
Forward Landfill, Inc.	16
Recology Hay Road	
Recology Ostrom Road LF Inc.	1
Yearly Totals:	10,258.48
<i>CalRecycle, 2012</i>	

A multi-year fee schedule was adopted to increase gate fees at Eastlake Landfill to offset costs of operations and compliance with regulations, such as installation of state-mandated gas migration control system for monitoring methane (Lake County Public Services, 2012). A five-year contract was also approved by the Board of Supervisors to begin import of solid waste from Ukiah to Clearlake in order to generate revenue and offset a steep increase in rates for local residents and businesses.

HazMobile, a mobile collection service administered by Lake County Public Services and Mendocino County, and subcontracted to South Lake Refuse, collects hazardous materials at no cost to residents. The HazMobile program is held once a month at various locations in Lake County. See Figure 12.7 for a map of Waste Solutions service areas in Lake County.



C&S Solutions, 2012. Lake County Waste Solutions Transfer Station and Recycling Center

Regulatory Framework

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to have a Solid Waste Management Plan. The state mandated goal was set at 50 percent diversion by 2000 with a baseline year of 1989, with later mandates set at achieving 50 percent diversion every year. The CIWMA requires every jurisdiction, county, and solid waste management authority to prepare a Source Reduction and Recycling Element within the plan. The purpose of the act was to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible” (CalRecycle, 2012d). The waste diversion goals are set at 50 percent by 2000.

Lake County Department of Integrated Waste Management has prepared and implements the County's Integrated Waste Management Plan in compliance with federal and state regulations. It contains the Household Hazardous Materials Element and the Source Reduction and Recycling Element (Lake County, 2008). The City has adopted an Integrated Waste Management Plan, however, it is not easily accessible by the public.

From 2006 to 2011, annual landfill tonnage decreased by over 25 percent. While waste diversion is a primary goal of the County Integrated Waste Management Plan, decreases in landfill tonnage amount to decreases in revenue. Revenue has decreased from a high of 2.5 million in 2005/06 and a yearly average of \$2 million to \$1.5 million. (Clymire & Chavez, Lake County Public Services, 2011). In addition to declining revenues, environmental compliance costs are rising. AB 32, the state Assembly Bill on Greenhouse Gas Emissions, has triggered the need for installation of a landfill gas system estimated to cost \$3 million.

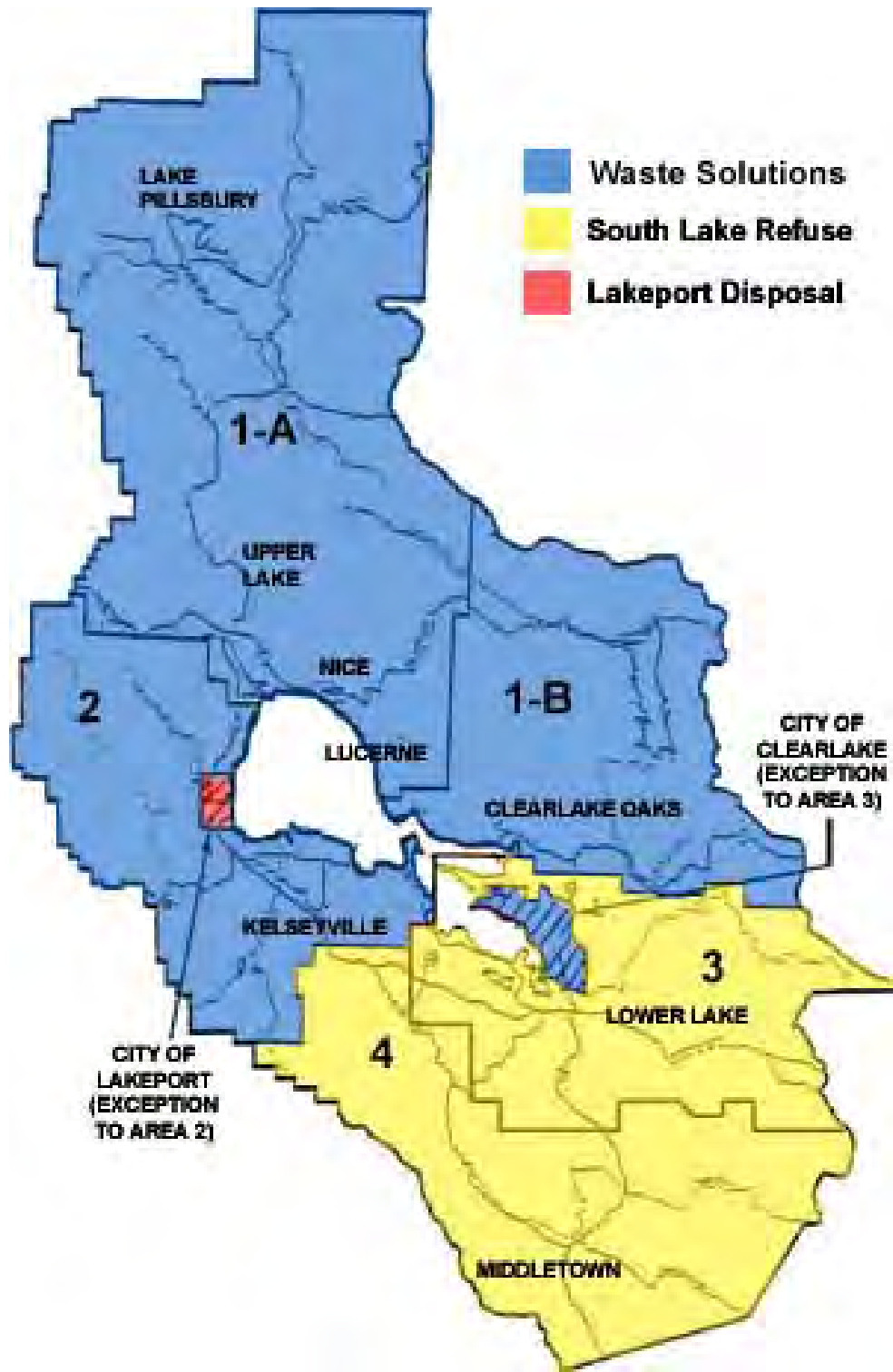
3. Police & Fire Services

Fire and police protection are cornerstones for maintaining safety within a community. Fire and police services are dispatched for medical emergencies as well as structural and wild land fires. Proper facilities for these services are required in order to support both the staffing needs of the City as well as to store specialized equipment and resources. For a discussion of police and fire services as they relate to public safety, refer to Chapter 10, Safety.

Police

The Clearlake Police Station is located at 14050 Olympic Drive. The police are working at reduced levels, as staffing was reduced by 50 percent in 2010. The force comprises 21 sworn officers, including a police chief, 13 patrol officers, 5 dispatchers, 2 detectives, and 1 part-time investigator. Clearlake police log an average of 21,000 incidents per year, with dispatch receiving between 60,000 to 70,000 calls. Police personnel estimates at least 10 additional patrol officers are needed to meet enforcement needs (personal communication, Lt. Tim Celli, 11/7/2012).

Figure 12.7 Waste Management Service Areas



C&S Solutions, 2012

In 1996, the City Hall complex was remodeled from a former grocery store. The Police Department shares the City Hall complex. The station has a dispatch center, evidence room, long-term storage, holding facilities, locker room, and a parking lot for staging the department's vehicle fleet. In 2012, the vehicle fleet is made up of 2008 Crown Victoria vehicles each with about 70,000 miles driven. The vehicle fleet is aging and costs to maintain vehicles are rising. Figure 12.8 is the countywide beat map of patrol areas served by County police. Clearlake is identified as Area 6A.

The department parking lot is shared with members of the public visiting businesses in the same center, including City Hall. The parking lot is not ideal for emergency response due to the foot traffic from the public and City Hall employees. Also, members of the public park in the row nearest to the building, which is designated on-duty officer priority parking and slows emergency response. Parking for personal staff vehicles is also provided in the same lot. The Department has had problems with vandalism to officers' private vehicles while on-duty.

Lakeport County Correctional Facility is located at 4913 Helbush Drive in Lakeport, approximately 27 miles away from Clearlake. The distance to the Lakeport County Correctional Facility necessitates a temporary holding facility onsite at the Clearlake Police Department. The holding facilities consist of five cells, including two sobering cells.

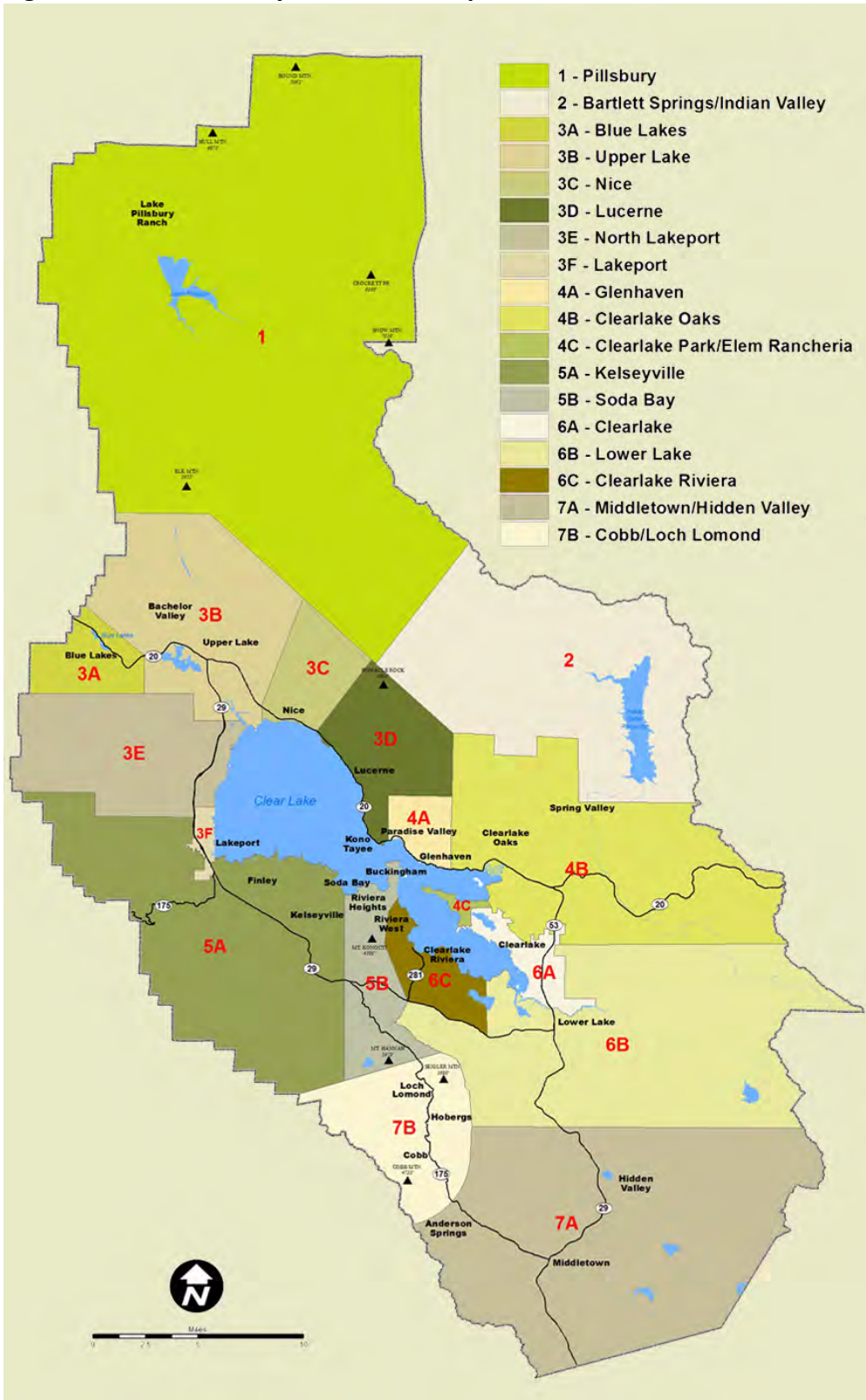
The Department is outgrowing the existing evidence room and long-term storage facilities for oversized items. In previous years, vehicles have been impounded, making long-term storage more difficult. The station did not originally provide long-term storage, and a room had to be retrofitted to provide needed storage space. The dispatch center is in fair condition, but needs repairs.

Fire Protection

The location and character of physical development of Clearlake places the city at an interface between forestland and urban area. Structures and human life are threatened when a wildfire, a phenomenon common in Clearlake and Lake County, burns within or near the City boundary. Wildfires impact Clearlake because of the potential to damage property and human life, and to reduce air quality. More information regarding these issues is also addressed in the Safety and Conservation chapters of this report.

The fire district encompasses over 146 square miles of Lake County. The south edge of the district reaches the Napa county line. To the north, the district reaches the Northshore Fire Authority Clearlake Oaks District, while the west of the Lake County Fire District is served by the Southlake Fire Protection District, a division of the California Department of Forestry and Fire Protection (Cal Fire, 2012).

Figure 12.8: Lake County Police Beat Map



Lake County Website, 2010

The Lake County Fire Protection District and Cal Fire serve the City. Facilities for the Lake County Fire Protection District include the Headquarter Station #70 and Administration building located at 14815 Olympic Drive, the Airport Fire Station #71 located on Airport Road, and Fire Station #72 located at Clearlake Park Station on 13428 Lakeshore Drive. The District is provided with mutual aid from the Cal Fire authority, an available resource for both structure and wilderness response. The nearest Cal Fire Units, managed by Cal Fire Lake, Napa, and Sonoma County (Cal Fire LNU) are located in the communities of Kelseyville and Clearlake Oaks. These facilities are approximately 15 miles and 5 miles away, respectively, from the City.

Programs offered out of the Lake County Fire Protection District facilities include public education and outreach with regard to fire safety, community classes in CPR, emergency medical services (EMS) and response, and a HAZ-MAT division (Lake County Fire Protection District, n.d.).



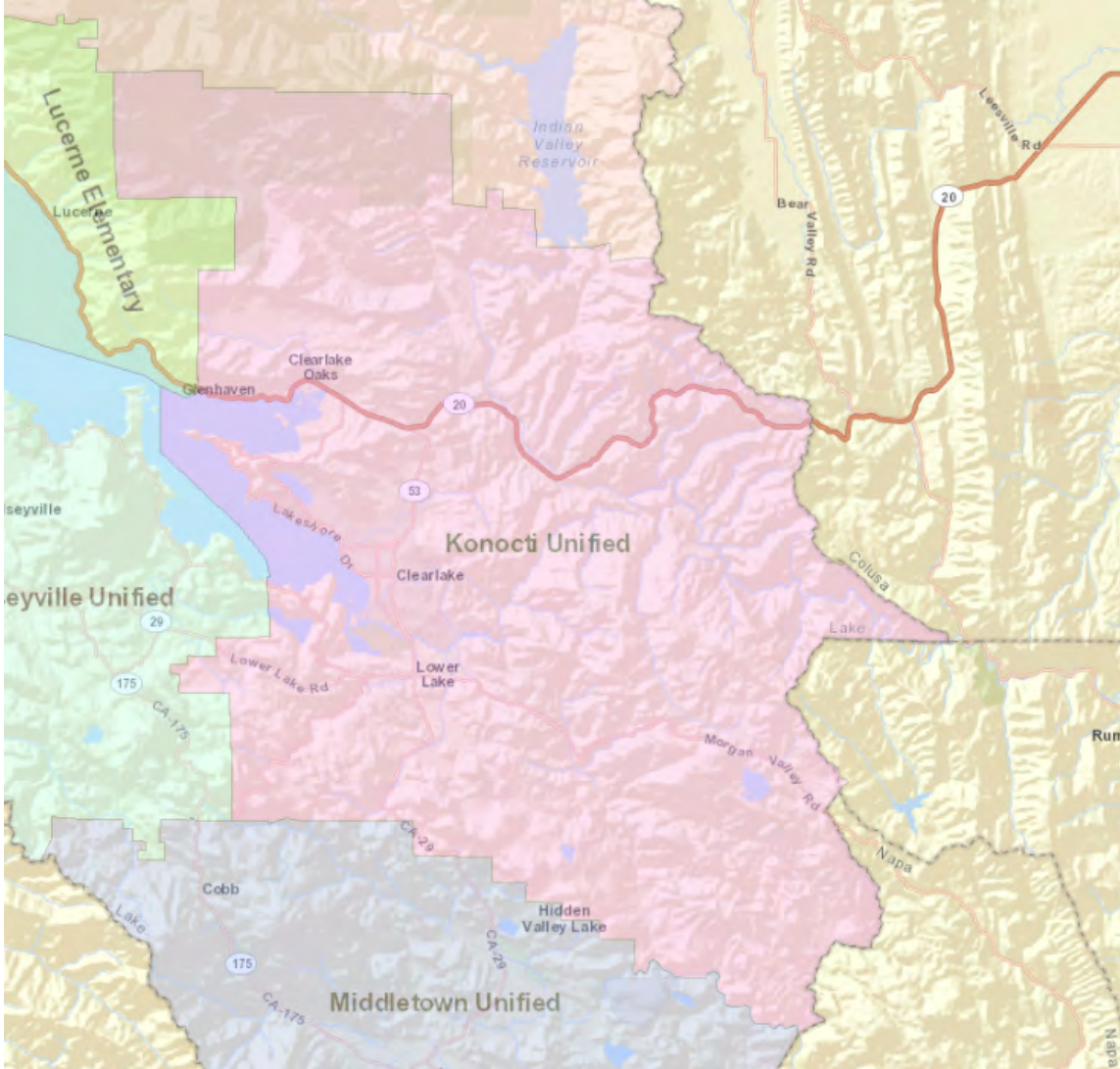
Cal Poly Land Use Inventory, 2012. Clearlake Fire Station

4. Education Services

Introduction

Education provides a foundation upon which one learns to think critically, make decisions about health, and prepare for the workforce. Clearlake has two elementary schools both serving kindergarten through 8th (K-8) grade students, one alternative school serving 3rd through 8th (3-8), and one community college, Yuba Community College. Clearlake lies within the Konocti Unified School District, shown in Figure 12.9.

Figure 12.9 Schools In Clearlake Within District Boundaries



Konocti Unified School District Website, 2011

Socio Economic Conditions

Schools in Clearlake, along with the rest of the Konocti District, are considered high poverty, meaning that more than 40 percent of students are enrolled in free or reduced lunch programs. Specifically, Konocti School District has the highest percentage of students enrolled in the free or reduced lunch program of any district in Lake County. 93 percent of students at Burns Valley Elementary School qualified for free or reduced lunch, 88 percent qualified at Pomo Elementary School, and 94 percent qualified at Highlands Academy in 2011.

Table 12.6 Socioeconomic Conditions of Clearlake Families, 2011

School	API	Parent Education Average	Percent Student Population Receiving Free Lunch
Burns Valley	707	1.68	93%
Pomo	738	1.69	88%
Highlands Academy	429	1.71	93%

Konocti School District, 2011a; California Department of Education, 2012

Legend

Academic Performance Index (API)

API summarizes a school's standardized test scores into a single number, which ranges from 200 to 1000. The statewide API goal is 800 for all schools; higher numbers generally indicate better performance on state tests.

Parent Education Average Based on the following values:

1 = Not a high school graduate, 2 = High school graduate, 3 = Some college, 4 = College graduate, 5 = Graduate school

Existing Schools

Clearlake schools belong to the Konocti Unified School District, which consists of nine schools, three located in Clearlake. Other schools in the district include two K-8 schools, one high school, and one alternative high school. The district serves 3,100 students living primarily in Clearlake, Clearlake Park, Clearlake Oaks, and Lower Lake.

In Clearlake, Burns Valley Elementary serves 552 K-8 students and 50 preschoolers, with 90.6 percent considered socioeconomically disadvantaged. Pomo Elementary School serves 620 students. Each school has a high number of English as a Second Language (ESL) students, with 114 and 111, respectively (Konocti Unified School District, 2011a). Clearlake Highlands Academy serves 64 students who face emotional and social challenges.

In recent years, elementary schools were restructured from a K-6 to K-8 structure, and the local middle school was eliminated. Following elementary school, parents send their students directly to Lower Lake High School in Lower Lake, CA.

Facilities and Programs

Facilities at Burns Valley School comprise of 23 classrooms, a library/media center, cafeteria, staff room, preschool classroom, and a facility for Healthy Start, which is a state organized program to help obtain grants to support early student and family learning. Pomo Elementary has 30 classrooms, a library with computer lab, cafeteria, staff room, preschool classroom, curriculum room, and a facility for Healthy Start and counseling services (Burns Valley, 2010-11). The playground at both Burns Valley and

Pomo include grass areas, blacktop, and playground equipment. Highlands Academy has four classrooms with a low student to teacher ratio (Highlands Academy, 2010-2011).

Regulatory Framework

Federal Regulation

The federal law, No Child Left Behind Act of 2001 (NCLB), embodies four principles: accountability for results, flexibility and local control for use of federal funds, enhanced parental choice, and a focus on effective teaching methods (Konocti School District, 2008). In order to achieve the NCLB goals of greater accountability in education, the California State Board of Education adopted five performance goals in 2002. The first goal is for all students to attain statewide baseline proficiency levels or better in reading and mathematics by 2014.

Facility Standards

The 2010-2011 School Annual Report Card reports on facility condition and academic achievement, among others, as indicators of an effective education. The conditions of facilities for education are determined by inspections by the school district, using a Facility Inspection Finder. Deficiencies and needed repairs are noted. A score based on a percent scale is given: good, fair, bad.

In 2011-2012, Burns Valley's facilities were rated 98.67%, or in good condition (Burns Valley, 2010-11). Pomo Elementary School's facilities were ranked 88.8%, or fair. Repairs at Pomo needed to address general clutter, dirty carpet, lights out, strong odor, and a ramp with a hole in it. Because of its charter status, the principal, rather than the school district, inspected facilities at Highlands Academy. Facility status was found to be good and no repairs were noted.

Academic Performance

Academic testing of students and rating of schools on an Academic Performance Index (API) is required by California State Law. Standardized tests to determine academic achievement include the California Standard Tests, California Modified Assessment, and the California Alternate Performance Assessment. The results of testing are published in the School Annual Report Card (SARC) for each school.

In 2010-2011 according to the SARC, schools in Clearlake are not meeting academic achievement proficiency standards across subjects. Students at Burns Valley Elementary are scoring between 23 to 44 percent proficient in all subject areas; English-Language Arts, Mathematics, Science, and History-Social Science. Students at Pomo Elementary ranged from 17 to 38 percent proficient across subject areas. Highland Academy students were 0 to 6 percent proficient according to test results, shown in Table 12.7.

Table 12.7 Percent Student Proficiency, by STAR Subject Category, 2010-2011 Academic Year

Standardized Testing and Reporting (STAR) Subject	Clearlake School		
	Burns Valley	Pomo	Highlands Academy
English-Language Arts	32%	38%	6%
Mathematics	40%	39%	0%
Science	44%	41%	4%
History-Social Science	25%	17%	0%

Burns Valley, 2010-11; Pomo, 2010-2011; Highlands Academy, 2010-2011

Academic Progress Index (API) scores for Burns Valley, Pomo, and Highlands Academy were all below the statewide target of 800, as shown in Table 12.8. The statewide API ranking placed Burns Valley at 1, meaning it ranked among the lowest 10 percent of all schools in the state. In comparison to 100 similar schools to Burns Valley, it is similar to the lowest 30 schools (Burns Valley, 2010-11). Pomo had an API of 738 and state ranking of 2. Highlands Academy achieved an API of 429 and received a B ranking.

If a school and district do not make Academic Yearly Progress for two years in a row in the same subject area or indicator, such as The Academic Progress Index, the program is placed in Program Improvement. For each continued year in Program Improvement, the level of federal intervention increases. Improving academic performance is the primary challenge for Clearlake schools.

Table 12.8 School Academic Progress, 2010-2011

Academic Category	Burns Valley Elementary	Pomo Elementary	Highlands Academy
2011 Growth API Score (from 2011 Growth API Report)	707	738	429
Statewide Rank (from 2010 Base API Report)	1	2	B
Met All 2011 AYP Requirements	No	No	No
Number of AYP Criteria Met Out of the Total Number of Criteria Possible	15 of 21	18 of 21	2 of 4
2011–12 Program Improvement Status (PI Year)	Year 3	Year 5	Year 5

Burns Valley, 2010-11; Pomo, 2010-2011; Highlands Academy, 2010-2011

Public Library

Redbud Library, one of three libraries in Lake County, is in Clearlake. Located on Burns Valley Road, this facility has an estimated 27,911 books in 13,203 square feet of library space. Four employees manage this local resource. Programs offered for the County’s libraries include an adult literacy program that is supported by local volunteer tutors (LAFCO MSR, 2005 and library.co.lake.ca.us/, 2010)

The guidelines in Table 12.9 were developed from a worksheet created by Library Planning Associates, Inc. in a document titled, Public Library Space Needs: A Planning Outline, by Anders C. Dahldren. 2005. This worksheet can be found at dpi.wi.gov/pld/xls/plspace.xls.

Table 12.9: Design Guidelines for Library Space Requirements	
Population served: 10,000 - 25,000	Standard
Seats	7.00 - 4.50 per person
Size of book collection	30,000 volumes
Amount of floor space needed	3,975 square feet
Amount of reader seating space needed	3000 square feet
Staff workspace	500 square feet
Meeting room space	1,930 square feet
Non-assignable space (mechanical, restroom)	3,919 square feet
Total floor space	13,324 square feet
<i>Dahldren, 2005</i>	

5. Other Community Services

Hospitals and Medical Facilities

Hospitals and medical facilities provide healthcare and life saving services for local people. St. Helena Hospital Center serves the entire region surrounding Clear Lake including the communities of Middletown, Hidden Valley Lake, Cobb, Lower Lake, Kelseyville, Clearlake and Clearlake Oaks. The facility is located on 18th Avenue in Clearlake and provides a variety of services to the County.

St. Helena medical facilities provide a network of family health centers and outpatient programs in Clearlake, Middletown, Hidden Valley Lake, and Kelseyville. The services provided at these facilities include:

- 24 hour emergency care
- Surgery and medical specialties
- Medical imaging and advanced laboratory services
- Intensive care
- Women’s care, obstetrics and digital mammography
- Rural mental health services
- Telemedicine access to regional specialists and additional expert care day and night
- Prevention, rehabilitation, and wound care

C. EMERGING DIRECTIONS

Based on research as well as feedback from community meetings, a few key themes should be discussed in the updated Public Facilities Element. The following subsections introduce these themes.

Child Development

Proper facilities and programs for children was one of the major issues discussed. Improvements in academic performance as well as an increase in the activity options were recognized by the community. These services were viewed as foundational to the intellectual and academic development of children in the City. In addition to a focus on academic performance, engaging activities for teenage youth were identified as a priority. The City’s population under the age of 19 is expected to increase 36 percent by 2040. Providing increased activities for this demographic will be important. One emerging solution with regard to the community’s comments and background findings is the development of a public facility, including a teen activity center or community center that supports after school programs.

A growing concern between economic development and the skill and talent available within the community was voiced during the community meetings. An apparent disconnect exists between the availability and creation of good jobs, the number of community members qualified to perform these jobs, and the job training opportunities available to community members. A number of residents believed a vocational training center would be a good addition to the community. If economic development is a priority of the City, a public facility where adult and vocational learning can occur, in conjunction with the deliberate development of an industry sector, is an emerging

theme. Vocational learning development should occur in conjunction with policy derived from the Economic Development Element of the General Plan.

Waste

While the County faces the issue of maintaining financial stability of the landfill, the City is struggling with illegal dumping of solid waste, hazardous waste, oversized items, and undisposed trash on residential property. Code enforcement is a major issue in the City. In both community meetings, waste disposal was one of the most discussed issues. Citizens identified the proper disposal of trash as the most pressing issue in Clearlake compared with homelessness and education. Not a single member of the public, however, listed a need for improving the waste management service. This suggests the waste management system is sufficient, however, all residents do not utilize the system. Action should be taken to encourage greater use of the waste management services.

Health and Safety Services

Providing better facilities for fire or police, in addition to increased resources, could increase the performance of these public services. There is potential for fires to become more frequent in the future and having more resources will help protect people and property.

Additionally, the management of storm water has been identified as a deficiency within the City. Without a connected system of infrastructure to manage, divert and store storm water, the continual deposit of material into Clear Lake will continue to add to its degradation. Additionally, infrastructure such as roads will always demand attention and improvement if storm water is not managed in a way that preserves their structural integrity.

Water

Aging infrastructure to deliver water to the City has been identified as a deficiency, as noted by water providers. Although the local water providers cite capital improvement plans that aim to systematically replace this infrastructure, a comprehensive and collaborative analysis of the entire delivery system has not been performed. The disjointed provision of water to the City could be seen as a challenge to development in the future, not because of physical water supply, but because the operation of these entities are not coordinated. Plans such as a Regional Integrated Water Management Plan will support the effort to supply water and coordinate capital improvements.

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