

## **VII. CONSERVATION ELEMENT**

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### ***Purpose***

The Conservation Element provides direction regarding the conservation, development, and utilization of natural resources. Its requirements overlap those of the open space, land use, safety and transportation elements. The conservation element is distinguished by being primarily oriented toward natural resources. Population growth and development continually require the use of both renewable and nonrenewable resources. One role of the conservation element is to establish policies that reconcile conflicting demand on those resources.

There are nine mandatory issues which must be addressed by the Conservation Element: water and its hydraulic force; forests; soils; rivers and other waters; harbors; fisheries; wildlife; minerals and other natural resources.

### ***Biological Resources***

Lakeport is uniquely situated in an area that is rich in biological resources. There is an abundance of fish in Clear Lake, many species of plant and animals in nearby wetlands and hundreds of acres of oak savannah woodlands. Protecting these valuable resources is essential for maintaining a healthy environment, sustaining the region's tourist industry, and the quality of life of the community. The policies and implementation programs in this element are intended to protect biological resources from development and careless management practices.

The Lakeport region is composed of a variety of plant communities that support a diversity of wildlife species. Each plant community is dependent on special ecological factors within that particular plant community. Micro-habitats occur within each plant community and are generally the result of a unique physical and/or biological factor. Most of the rare, threatened and endangered plants in Lake County occur in micro-habitats such as vernal pools and/or serpentine soils. The habitat types in the vicinity of the City of Lakeport are presented and described below.

### **SHORELINE**

The remaining undeveloped portions of the Clear Lake shoreline are composed of marsh and riparian habitat that supports a diverse and abundant variety of fish and wildlife. Wildlife that is common to shoreline areas includes a variety of ducks, herons, grebes, egrets, ospreys and fur-bearing mammals. Large populations of catfish, crappie, largemouth bass, carp and hitch are found in Clear Lake along the shores. A majority of the wetland habitat located along the Clear Lake shoreline has been lost to urban and agricultural development.

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## **RIPARIAN AREA**

Riparian areas occur along the banks or edges of rivers or creeks, and typically include tree species such as willows, maple, cottonwood, and alder, with an understory of shrubs and vines. Riparian areas provide cover and nesting habitat for a variety of birds. Riparian areas generally act as a movement corridor where many wildlife species migrate or disperse into other habitats to forage for food or to carry out a distinct part of its life cycle.

Much of the sediments being deposited in Clear Lake are filtered out by vegetation, marshes and creek-bank structures. Changing the course of streams and altering vegetation along their banks can result in changes to the natural hydrologic processes.

## **OAK WOODLANDS**

Oak woodlands occur in inland valleys and foothills usually with a hard pan or rocky soil between 4 and 20 feet deep. Some of the dominant plants in an oak woodland include blue oak, coast live oak, interior live oak, and foothill pine, with manzanita, coffeeberry, redberry, currant, gooseberry, and toyon to a lesser extent. Annual goldfields, poppies, lupines, and other forbs are commonly found in the spring in this plant community.

Oak woodlands support many large mammals including blacktail deer, mountain lion, black bear, coyote, bobcat and grey fox. Small mammals include the grey squirrel, California ground squirrel, and a variety of mice. Birds include turkey vultures, eagles, hawks, owls, quail, mourning dove, mockingbird, scrub jay, western meadow lark, finches, and sparrows.

## **CHAPARRAL**

Chaparral communities occur in the inland foothills on dry slopes and ridges with shallow soils and are often found on serpentine soils. Common plants found in chaparral communities include ceanothus, manzanita, hollyleaf cherry, chamise, scrub oak, birchleaf mountain-mahogany, and red shank. Chaparral communities provide habitat for various kinds of snakes and lizards, as well as many birds and mammals along the chaparral/oak woodland ecotone.

## **AGRICULTURAL LAND**

Agricultural land that is actively tilled and intensively managed for long durations is generally low in plant and animal diversity due to the marginal habitat qualities that they provide. Small mammals that can commonly be found in agricultural land include pocket gophers, deer mouse, and California ground squirrel, among others. Small mammals are the main food source for raptors such as red-tailed hawk, red-shouldered hawk, American kestrel, and barn owl, and for large mammals such as coyote, raccoon, striped skunk, and opossum. Common birds found in agricultural land include western scrub jay, American crow, house finch, killdeer, and European starling among others.

The disturbed field margins of agricultural lands are located along the perimeter of fields. Plant diversity in this habitat type is higher compared to agricultural land, as this area is generally not

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regularly managed. Plants that can commonly be found in disturbed field margins include mustards, filarees, clovers, wild oats, bromes, foxtail barley, Italian ryegrass, and fiddle-neck among others. Wildlife in disturbed field margins is generally similar to that of active agricultural areas.

## **URBAN**

Urban areas consist of structures, roads, and parking areas. The plant diversity in this type of habitat is generally low and is composed of primarily of ornamental landscaping plants as well as plants commonly found along disturbed field margins. Wildlife in the area is very limited as food sources are scarce. Wildlife that is commonly found in these areas is similar to those found in agricultural and disturbed areas although they are less abundant and are generally passing through rather than occupying the area.

## ***Water Resources***

The City of Lakeport currently obtains its water from two primary sources: Groundwater sources and water from Clear Lake treated at the City's water treatment plant. The groundwater supply consists of four wells located in Scotts Valley. Two of the wells are on Scotts Creek adjacent to the City's old pumping plant and two wells are located on the Green Ranch. Seasonal fluctuation in the underground water table means that the wells are only viable for portions of the year. When water supply from the wells in Scotts Valley is limited, the City relies on treated surface water from Clear Lake.

The City constructed the Interim Water Supply Project in 1981 and 1982 to draw and treat water from Clear Lake for use in the community. This project included a raw water intake structure in Clear Lake, a 14-inch diameter raw water intake line, a raw water pump station, a 10-inch diameter pipeline which conveys water from the raw water pump station to a package water treatment plant. The treatment plant, located on Konocti Avenue, consists of a raw water holding basin, chemical feed systems, flocculation, tube sedimentation, gravity filtration, activated carbon contactors and disinfection. In 1999 the treatment facility was expanded, and can now treat up to 1,200 gallons per minute. The City has diversified water resources which ensure that the water supply is stable and reliable.

In order to ensure an adequate supply of clean potable water to accommodate existing and future needs, the City of Lakeport must strive to protect the quality of the groundwater as well as the quality of Clear Lake.

The continued protection and improvement of Clear Lake and its tributary streams will depend on the application of more stringent regulations to reduce erosion, siltation, and the inflow of sewage and other pollutants. In addition, it is necessary to maintain adequate fresh water inflow from its watershed. At present, Yolo County Flood Control and Water Conservation District controls water rights for Cache Creek and for Clear Lake above a specified water level.

The continued access to adequate water supplies depends on a combination of conservation, access to riparian and groundwater supplies and the purchase or exchange of surface water from

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Yolo County Flood Control and Water Conservation District. To be effective, such measures need to be implemented in a coordinated fashion among local, state and federal agencies.

## ***Agriculture***

Agriculture has played a key role in Lakeport's history and economic development. The cultivation of grapes, fruit crops, nuts and livestock continues to represent an important part of the region's economy and way of life. Not only are agricultural uses important economically, but they provide open space areas, preserve view corridors, and maintain the rural atmosphere valued by Lakeport residents.

It is important that future urban development not decrease any further the amount of prime agricultural land, since it is a valuable and irreplaceable resource. Prime agricultural land is characterized by good to excellent soil conditions, available water and sufficient acreage to support a viable farming operation. The Lake County Agricultural Commissioner has determined that there are no prime agricultural lands within City limits. There is, however, prime agricultural land in the southern portion of the Sphere of Influence and outside of the Sphere of Influence, in the Scotts Valley area.

Policies and programs in this element relating to agriculture seek to preserve remaining prime agricultural land in the Planning Area. These areas have previously been designated Urban Reserve or Open Space, and are not priority areas for annexation. Additionally, there are several policies and implementation programs in this element to protect those wishing to continue farming by reducing the conflict between agricultural and urban land uses.

## ***Mineral Resources***

There are no mineral extraction or other mining operation at present within the Lakeport City limits and Sphere of Influence. Sand, gravel and borax deposits are extracted in the Scotts Valley and Big Valley Areas. These mining operations have a significant impact on ground water capacity, siltation of streams and highway traffic.

The current Lakeport General Plan prohibits any mining or mineral extraction activities within the City and calls for the City to work with the County of Lake to discourage such land uses within the City's Sphere of Influence.

## ***Air Quality***

The climate of the Lakeport Planning Area, according to the Sunset Western Garden Book, is identified as Zone 7, which is referred to as California's Digger Pine Belt. It is indicated that hot summers and mild, but pronounced winters give this area sharply defined seasons without severe winter cold or innervating humidity. The average maximum temperatures range from a low of approximately 54 degrees Fahrenheit in December to a high of about 92 degrees Fahrenheit in July. Rainfall is concentrated predominantly during the five months from November to March.

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Lake County is unique in California since it is the only county in the state which is considered an attainment area or is unclassified for all of the federal and all of the state criteria air pollutants. Air quality is a key consideration in maintaining the environmental aesthetic qualities of Lakeport which contribute to the charm, economy, and quality of life of the city. The maintenance of good air quality requires a balance of regulating major and minor point sources of air pollution, with good land use planning and transportation management to minimize emissions from motor vehicles, stationary sources and impacts on the public, residents, business and industry.

The Lake County Air Quality Management District (LCAQMD) is responsible for regulating both point and area sources of air emissions including qualifying industrial and commercial businesses, all open burning operations including agricultural, prescribed and residential burning and grading activities on serpentine surfaces. The LCAQMD enforces its Rules and Regulations, which implement federal and state air quality requirements, through a permit system that functions independently of the County planning process. Because the County is an attainment area (or is unclassified) for all criteria pollutants, both federal and state, it is not required to prepare an Air Quality Management Plan. Instead, the District's focus is on the prevention of significant deterioration in air quality, and this goal is pursued mainly through the District's permitting process and the regulation of point sources of air emissions. The AQMD reviews all planning and environmental documents submitted for review and comment and actively participates in the planning process where District permits are determined necessary and/or where projects are otherwise subject to District regulation or are a significant potential source of air emissions.

Although the County is an attainment area, on several instances since 1990 pollutant concentrations have equaled (but not exceeded) the state standards for ozone and for particulate matter (PM10). Vehicles, unpaved roads, solid fuel combustion from agricultural, forest and range management, and residential burning are major contributors of PM-10 emissions. The Geysers Geothermal Power Plants and steam production wells are also sources of air pollutants within the Lake County Air Basin.

There are also a number of areas in Lake County that contain serpentine rock and soils. These areas have been mapped and identified to contain regulated amounts of asbestos. The Lakeport Planning Area has serpentine lands that have been or are likely to be developed. Unless adequately mitigated, the disturbance of serpentine will release asbestos to the air and water.

## **GLOBAL WARMING**

In California, observational trends from the last half century show warmer winter and spring temperatures, decreased spring snow levels in lower- and mid-elevation mountains, up to one month earlier snowpack melting, and flowers blooming one- to two-weeks earlier than under historical conditions (Cayan et al. 2006b). Research suggests that human activities, such as the burning of fossil fuels and clearing of forests, contribute additional carbon dioxide (CO<sub>2</sub>) and other heat trapping gas emissions into the atmosphere. Future global climate change could have widespread consequences that would affect many of California's important resources, including its water supply.

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### ***Assembly Bill 1493***

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 required that the California Air Resources Board (ARB) develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

### ***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’s 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% 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 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, the California Climate Solutions Act of 2006***

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. 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 ARB 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

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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 required the California Public Utilities Commission (PUC) 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 PUC and CEC.

### **Senate Bill 97**

SB 97 (Chapter 185, Statutes 2007) was signed by Governor Schwarzenegger on August 24, 2007. The legislation provides partial guidance on how greenhouse gases should be addressed in certain CEQA documents. SB 97 requires the Governors Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions, including but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Resources Agency by July 1, 2009. The Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by ARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), ozone (O<sub>3</sub>), water vapor, nitrous oxide (N<sub>2</sub>O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect (Ahrens 2003). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a). A byproduct of fossil fuel combustion is CO<sub>2</sub>. Methane, a highly potent GHG, results from offgassing associated with agricultural practices and landfills. Processes that absorb and accumulate CO<sub>2</sub>, often called CO<sub>2</sub> "sinks," include uptake by vegetation and dissolution into the ocean.

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As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO<sub>2</sub> in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a). Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, CH<sub>4</sub> is a much more potent GHG than CO<sub>2</sub>. As described in the General Reporting Protocol of the California Climate Action Registry (2006), one ton of CH<sub>4</sub> has the same contribution to the greenhouse effect as approximately 21 tons of CO<sub>2</sub>. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7% of total GHG emissions in the state (California Energy Commission 2006a). This category was followed by the electric power sector (including both in-state and out-of-state sources) (22.2%) and the industrial sector (20.5%) (California Energy Commission 2006a).

### ***Feedback Mechanisms and Uncertainty***

Many complex mechanisms interact within Earth's energy budget to establish the global average temperature. For example, a change in ocean temperature would be expected to lead to changes in the circulation of ocean currents, which, in turn would further alter ocean temperatures. There is uncertainty about how some factors could affect global climate change because they have the potential to both enhance and neutralize future climate warming.

### ***Direct and Indirect Effects of Aerosols***

Aerosols, including particulate matter, reflect sunlight back to space. As particulate matter attainment designations are met, and fewer emissions of particulate matter occur, the cooling effect of anthropogenic aerosols would be reduced, and the greenhouse effect would be further enhanced. Similarly, aerosols act as cloud condensation nuclei, aiding in cloud formation and increasing cloud lifetime. Clouds can efficiently reflect solar radiation back to space (see discussion of the cloud effect below). As particulate matter emissions are reduced, the indirect positive effect of aerosols on clouds would be reduced, potentially further amplifying the greenhouse effect.

### ***The Cloud Effect***

As global temperature rises, the ability of the air to hold moisture increases, facilitating cloud formation. If an increase in cloud cover occurs at low or middle altitudes, resulting in clouds with greater liquid water content such as stratus or cumulus clouds, more radiation would be reflected back to space, resulting in a negative feedback mechanism, wherein the side effect of more cloud cover resulting from global warming acts to balance further warming. If clouds form at higher altitudes in the form of cirrus clouds, however, these clouds actually allow more solar radiation to pass through than they reflect, and ultimately they act as a GHG themselves. This

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results in a positive feedback mechanism in which the side effect of global warming acts to enhance the warming process. This feedback mechanism, known as the “cloud effect” contributes to uncertainties associated with projecting future global climate conditions.

### ***Other Feedback Mechanisms***

As global temperature continues to rise, CH<sub>4</sub> gas currently trapped in permafrost, would be released into the atmosphere when areas of permafrost thaw. Thawing of permafrost attributable to global warming would be expected to accelerate and enhance global warming trends. Additionally, as the surface area of polar and sea ice continues to diminish, the Earth’s albedo, or reflectivity, is also anticipated to decrease. More incoming solar radiation will likely be absorbed by the Earth rather than being reflected back to space, further enhancing the greenhouse effect. The scientific community is still studying these and other positive and negative feedback mechanisms to better understand their potential effects on global climate change.

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## **OBJECTIVES, POLICIES, & PROGRAMS**

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### ***Biological Resources***

#### **OBJECTIVE C 1: CONSERVE AND ENHANCE LAKEPORT'S UNIQUE NATURAL BEAUTY AND IRREPLACEABLE NATURAL RESOURCES.**

**Policy C 1.1: Biological Preservation.** Preserve biological resources such as plant and animal species and special habitat areas.

**Program C 1.1-a:** Enforce the City’s Zoning Ordinance which contains specific development standards for shoreline development, and requires the submittal of a shoreline development plan for review and approval.

**Program C 1.1-b:** Require a revegetation plan prepared by a professional botanist, or similar professional, for projects which result in vegetation removal.

**Program C 1.1-c:** Revise the Zoning Ordinance to require revegetation plans to include native species; the fencing of sensitive areas and construction activities; a 3:1 replacement for any tree removed; and undergrowth revegetation. Heritage trees (trees that are at least 36 inches in diameter or any tree having significant historical or cultural importance to the community) shall be replaced at a 5:1 ratio.

**Program C 1.1-d:** Require subdivisions in rural areas greater than 10 acres with a slope topography of less than five percent to carry out a biological survey for vernal pools, riparian areas, serpentine outcroppings, and sensitive plant species (by a qualified biologist). Require mitigating measures to be prepared and implemented prior to project construction.

**Program C 1.1-e:** Revise the Zoning and Subdivision Ordinances to permit density transfers; encourage PD (Planned Development) Zoning for developments over two acres in size; and other requirements as appropriate to protect sensitive

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resource areas (indicated in Figure 16 and other areas subsequently identified through the environmental review process).

**Policy C 1.2: Vegetation Protection.** Minimize removal of all vegetation in new developments to preserve wildlife habitat, scenic beauty and to prevent soil erosion. In particular, the removal of heritage trees, street trees, and mature trees should be minimized.

**Program C 1.2-a:** Enforce the City’s Zoning Ordinance (Chapter 17.21) which contains specific measures to protect heritage and street trees.

**Program C 1.2-b:** Enforce the Zoning Ordinance (Chapter 17.21), which requires a detailed site inventory of mature trees for all developments located on properties where there are existing native trees on the site.

**Policy C 1.3: Native and Drought Resistant Trees.** Encourage the planting of native and drought resistant trees in new developments and in City-owned parks, trails and recreational facilities.

**Policy C 1.4: Hillside Protection.** Development in areas with a 25% slope or greater shall be subject to the following criteria:

- Limit grading and retain the natural terrain to the extent possible.
- A minimum area of twenty-five percent of the lot area should remain in its natural state
- No development should be allowed within 100 vertical feet of the ridgeline unless there are no site development alternatives
- Development located in hillside areas shall avoid removal of oak trees that are six inches in diameter. In the event that removal of oak trees is necessary, three trees shall be planted for every significant tree removed. (See Policy C 1.1-c for additional requirements regarding Heritage trees.)
- Oak trees shall be further protected during construction through the use of orange fencing placed a minimum of 8 feet from the dripline of the trees.

### ***Mineral Resources***

**OBJECTIVE C 2: TO PROTECT THE CITY FROM THE POTENTIAL IMPACTS OF MINING OPERATIONS.**

**Policy C 2.1: Mining Prohibition.** Prohibit mining, quarrying and mineral extraction activities within City limits.

**Program C 2.1-a:** Revise the Zoning Ordinance to prohibit mining, quarrying and mineral extraction facilities within City limits.

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**Program C 2.1-b:** Work with the County of Lake to discourage mining, quarrying and mineral extraction facilities within the Lakeport Sphere of Influence.

**Program C 2.1-c:** Request the County send referrals within the Lakeport Sphere of Influence for all proposed mining, quarrying or mineral extraction activities. Carefully review and respond to all EIR's for such activities to ensure that at a minimum, impacts regarding: noise; air quality; visual characteristics on surrounding properties; water quality and capacity; transportation facilities; and mitigations to restore the landscape to its pre-extraction condition.

### ***Air Quality***

**OBJECTIVE C 3: TO MAINTAIN GOOD AIR QUALITY IN LAKEPORT AND CONTINUE TO HAVE ATTAINMENT STATUS.**

**Policy C 3.1: High Air Quality Standard.** Maintain a high air quality standard in Lakeport to protect the public health.

**Program C 3.1-a:** Require review of all development proposals by the Lake County Air Quality Management District to establish mitigations needed to ensure compliance with air quality standards.

**Program C 3.1-b:** Include air quality as a factor in the City's environmental review procedures.

**Program C 3.1-c:** Include the Fire District in the review of proposed land uses which would handle, store or transport any potential air pollutant sources such as, but not limited to: lead; mercury; vinyl chloride; benzene; asbestos; beryllium; and all fuels.

**Program C 3.1-d:** Continue to require a dust emissions control plan for construction that includes regular watering during earthmoving operations or excavations, covering stockpiles or exposed earth and soil, spraying water or palliatives, pave or otherwise seal disturbances as soon as possible, and other measures to limit dust and reduce evaporative hydrocarbon emissions.

**Policy C 3.2: Sensitive Receptors.** Ensure that the air quality impacts of projects located in proximity to sensitive receptors, which can be identified in Figure 16 by land use, are adequately mitigated. Discourage land uses producing adverse air quality impacts from locating near sensitive receptors.<sup>1</sup>

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<sup>1</sup> Sensitive receptors are generally defined as people that are at the highest risk of respiratory problems from air emissions. People in this category generally include the elderly or young children, but can include people of any age. Sensitive receptors are oftentimes associated with schools, hospitals, convalescent homes, etc. Residential uses are also considered a use that is or may be occupied by a sensitive receptor.

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**Program C 3.2-a:** Require air pollution point sources such as manufacturing or handling of air pollutants to locate at a sufficient distance from residential areas and sensitive receptors to significantly reduce air quality impacts of such land uses.

**Program C 3.2-b:** Include buffer zones within site plans for projects in residential areas and within sensitive receptor site plans to separate those uses from freeways, highways, arterials, point sources and hazardous materials locations.

**Policy C 3.3: Naturally Occurring Asbestos.** The City shall protect public health from naturally occurring asbestos by requiring mitigation measures to control dust and emissions during construction, grading, quarrying or surface mining operations.

**Program C 3.3-a:** Adopt a Naturally Occurring Asbestos Ordinance. The City should adopt an ordinance that regulates construction activities in areas that may contain serpentine soils.

### ***Solid Waste***

**OBJECTIVE C 4: TO MAXIMIZE RECYCLING EFFORTS AND REDUCE WASTE STREAM TO THE LANDFILL.**

**Policy C 4.1: Reuse of Resources.** Facilitate management of solid waste to maximize the reclamation and reuse of resources contained in waste materials in a manner which does not adversely impact the environment.

**Program C 4.1-a:** Continue the collection of waste paper produced by the City for recycling.

**Program C 4.1-b:** Purchase goods containing recycled materials for City use whenever possible.

**Program C 4.1-c:** Continue to implement a curbside recycling program for newspaper, glass and organic materials.

**Program C 4.1-d:** Revise the Zoning Ordinance to require all commercial/retail, office and multifamily developments to provide on-site drop-off areas for recycling. Coordinate with the City's refuse disposal contractor or other recycling services to ensure regular pick-up.

**Policy C 4.2: Recycling Transfer Stations.** Facilitate the establishment of a recycling transfer station to collect, store, and ship recyclable materials.

**Program C 4.2-a:** Revise the Zoning Ordinance to permit the establishment of a recycling transfer station in the Service Commercial Zoning District with a Conditional Use Permit.

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**Policy C 4.3: Solid Waste Hauling.** Discourage the hauling of solid waste on collector and local streets through residential areas with the exception of garbage trucks serving local neighborhoods.

### ***Energy Conservation***

**OBJECTIVE C 5: TO REDUCE DEMAND FOR ELECTRICITY AND INCREASE ENERGY EFFICIENCY.**

**Policy C 5.1: Energy Efficiency.** Reduce energy waste and peak electricity demand through energy efficiency and conservation in homes and businesses.

**Program C 5.1-a:** Integrate energy efficiency, conservation, and other green building requirements into the development review process.

**Program C 5.1-b:** Offer incentives to encourage energy efficiency and green building practices such as:

- permit streamlining;
- fee waivers; and
- density bonuses for “green developments.”

**Program C 5.1-c:** Provide information, marketing, training, and education to support green building practices.

**Policy C 5.2: City Use of Green Technologies.** Integrate energy efficiency, conservation, and green building practices into all City functions.

**Program C 5.2-a:** Support minimum green building certification requirements for architects, contractors, and other building professionals. Provide information about training programs and list certified contractors in City information sources.

**Program C 5.2-b:** Monitor and support State and federal legislation that promotes energy efficiency and renewable energy sources.

**Program C 5.2-c:** Work with local commercial, industrial, and agricultural operations to identify opportunities for energy efficiency in the storage, transport, refrigeration, and other processing of commodities.

**OBJECTIVE C 6: TO INCREASE RENEWABLE RESOURCE USE**

**Policy C 6.1: Renewable Energy Resources.** Preserve opportunities for development of renewable energy resources.

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**Policy C 6.2: Renewable Technologies Incentives.** Facilitate renewable technologies through streamlined planning and development rules, codes and processing, and other incentives.

**Program C 6.2-a:** Require the protection of passive or active solar design elements and systems from wintertime shading by neighboring structures and trees.

**Program C 6.2-b:** Where feasible, develop and employ renewable energy and clean generation technologies (such as solar) to power City facilities using tax-free low interest loans and other available financing options.

**Program C 6.2-c:** Evaluate and implement, as feasible, local government financing options such as low-interest loans, pooled project financing and joint ventures with other agencies with financing authority such as water and fire districts.

### ***Agricultural Resources***

#### **OBJECTIVE C 7: TO PROTECT AND ENHANCE AGRICULTURAL RESOURCES.**

**Policy C 7.1: Annexation of Agricultural Lands.** Discourage the annexation of prime agricultural lands for urban uses.

Prime agricultural land is generally defined as Class I and II based on the methodology of the Soil Conservation Service classification system (see Section 56064 of the California Government Code for a full definition).

**Policy C 7.2: Wastewater for Irrigation.** Explore the alternative use of wastewater for irrigation purposes beyond the existing spray irrigation activities. This can be accomplished by pursuing the Sphere of Influence amendment and annexation of the Specific Plan Area which includes the City's sewer treatment facility. In the event that treatment facility is converted to a tertiary treatment facility, there may be additional opportunities for wastewater irrigation for certain types of food crops in addition to potentially using the water to irrigate parks, playgrounds, and other similar uses subject to RWQCB permit. A small portion of the CLMSD property is designated as "prime agricultural land" and "farmland of local importance." The City will attempt to maintain the "prime agricultural land" by leasing it for agricultural purposes.

**Policy C 7.3: Coordination with Lake County.** Continue the coordination of land use planning between the County of Lake and Lakeport to preserve existing agricultural lands.

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## **Water Quality**

### **OBJECTIVE C 8: TO PROTECT AND ENHANCE WATER QUALITY IN WATERCOURSES, CLEAR LAKE AND IN GROUNDWATER.**

**Policy C 8.1: Stream and Creek Protection.** Preserve and protect streams and creeks in their natural state to the maximum extent feasible. [Streams, creeks and other riparian corridors are considered to be in a natural state when they support their own environment of vegetation, wildlife and have not been concretized or channelized.]

**Program C 8.1-a:** Develop, in cooperation with the County and the State Department of Fish and Game, guidelines for the construction and maintenance of watercourses which assure that the native vegetation is not unnecessarily removed and that maintenance minimizes disruption of wildlife breeding activities. Incorporate these guidelines, where appropriate, into the Zoning Ordinance and Public Works Department maintenance procedures.

**Program C 8.1-b:** Revegetate watercourses with native plant species that are compatible with the watercourse maintenance program and which do not adversely impact flow.

**Policy C 8.2 Clear Lake.** Prohibit any filling of Clear Lake below 7.79 as indicated by the Rumsey Gauge.

**Program C 8.2-a:** Enforce the Zoning and Subdivision Ordinances to prohibit filling of Clear Lake below 7.79 as indicated on the Rumsey Gauge.

**Program C 8.2-b:** Review all development proposals submitted to the County within the Lakeport Planning Area and oppose any filling of Clear Lake.

**Policy C 8.3: Soil Erosion.** Soil erosion shall be controlled to prevent flooding and destruction of natural waterways, to maintain water quality and to reduce public costs of flood control and watercourse maintenance.

**Program C 8.3-a:** Grading Permits shall be issued for all new construction, where applicable. An approved erosion control plan and revegetation plan shall be included in the grading plan, wherever determined appropriate by the City, to include measures to mitigate erosion during and after construction.

**Program C 8.3-b:** Consider the adoption of a Hillside Protection Ordinance in the Zoning Ordinance that includes specific performance criteria for the protection of hillside areas.

**Policy C 8.4: Water Quality.** Continue to cooperate with the County, Lake County Watershed Protection District (LCWPD) and other agencies to develop and implement measures to improve the quantity and quality of water resources.

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**Program C 8.4-a:** Formally request that the County send all notices to the City regarding proposed gravel extraction operations in Clear Lake watersheds.

**Program C 8.4-b:** Participate in County review of proposals submitted to extract gravel from Scotts Creek. Oppose any gravel extraction operations which would reduce the capacity of this aquifer.

**Program C 8.4-c:** Participate in a regional groundwater monitoring program to establish a region-wide water conservation program.