



Planning Division

PLANNING COMMISSION STAFF REPORT

TO: Planning Commission

FROM: Christopher Williamson, AICP, Senior Planner

DATE: August 20, 2009

SUBJECT: Report on Chapter 2, Sustainable Community, Chapter 5, Environmental Resources, and Chapter 6, Safety and Hazards, of the Draft 2030 Oxnard General Plan

- 1) **Recommendation:** That the Planning Commission receive a report on the Sustainable Community, Environmental Resources, and Safety and Hazards chapters of the Draft 2030 Oxnard General Plan.
- 2) **Project Description:** This is the fourth and last in a series of reports on the Draft 2030 Oxnard General Plan. Chapter 2, Sustainable Community, is briefly summarized as it was previously presented on May 12, 2009. Chapter 5, Environmental Resources, is divided into activities that occur primarily within the City and those that occur in surrounding areas. Chapter 6, Safety and Hazards, is divided into natural and man-made hazards and safety topics.
- 3) **Chapter 2, Sustainable Community:** The chapter begins with a review of existing conditions related to climate change/global warming, renewable energy, and related topics falling under the general theme of sustainable planning, development, and quality of life. These “big-picture” topics are new or of sufficient importance to warrant their own chapter and discussion separate from Chapters 5 and 6 where related topics remain in their more conventional “day-to-day” context. Development of a Climate Action Plan is proposed that would comprehensively encompass and address the sustainable community issues.
- 4) **Chapter 5, Environmental Resources:** The overall goal for Chapter 5 is to protect natural and cultural resources (Goal ER-1). Most of the goals focus on resources within the City and over which the City has some regulatory responsibility and/or a policy opportunity (Goals ER-2, ER-4, ER-7 to ER-12, and ER-17). The remaining goals focus on resources mostly outside City limits where the City could influence the activities of other agencies (ER-3, ER-13 to ER-15). Policies within Goals ER-5 and ER-6 will be merged with goals in other chapters to consolidate these topics.

- 5) Chapter 6, Safety and Hazards:** Chapter 6 covers seismic/earthquakes and flooding risks (Goals SH-1 to SH-4), emergency preparedness (Goal SH-5), Noise (Goal SH-6), and risks associated with hazardous materials use, storage, and movement. Goals SH-9 (Transportation Hazards) and SH-10 (Oxnard Airport Operations) will be merged with goals in other chapters to consolidate these topics.
- 6) Comment Deadline:** This is the final presentation on the Draft 2030 General Plan, Chapters 2 to 8 (Chapter 1 is an introduction, Chapter 9 is an implementation plan). Comments are welcome on any chapter, in writing or by e-mail, on or before 6:00 p.m., August 26, 2009. The deadline is necessary so that staff and consultants may finalize a Revised 2030 General Plan, Final 2030 General Plan Program Environmental Impact Report, and Revised 2006-2014 Housing Element. These documents would then be available to the public prior to the first hearing with the Oxnard Planning Commission on a date yet to be scheduled. Comments may be offered at the subsequent Planning Commission and City Council meetings.

Attachments

- A. Chapter 2, Draft 2030 General Plan
- B. Chapter 5, Draft 2030 General Plan
- C. Chapter 6, Draft 2030 General Plan

Prepared by: <u> CW </u>
Approved by: <u> SM </u>



Planning Division

PLANNING COMMISSION STAFF REPORT

TO: Planning Commission

FROM: Christopher Williamson, AICP, Senior Planner

DATE: August 6, 2009

SUBJECT: Report on Chapter 2, Sustainable Community, Chapter 5, Environmental Resources, and Chapter 6, Safety and Hazards, of the Draft 2030 Oxnard General Plan

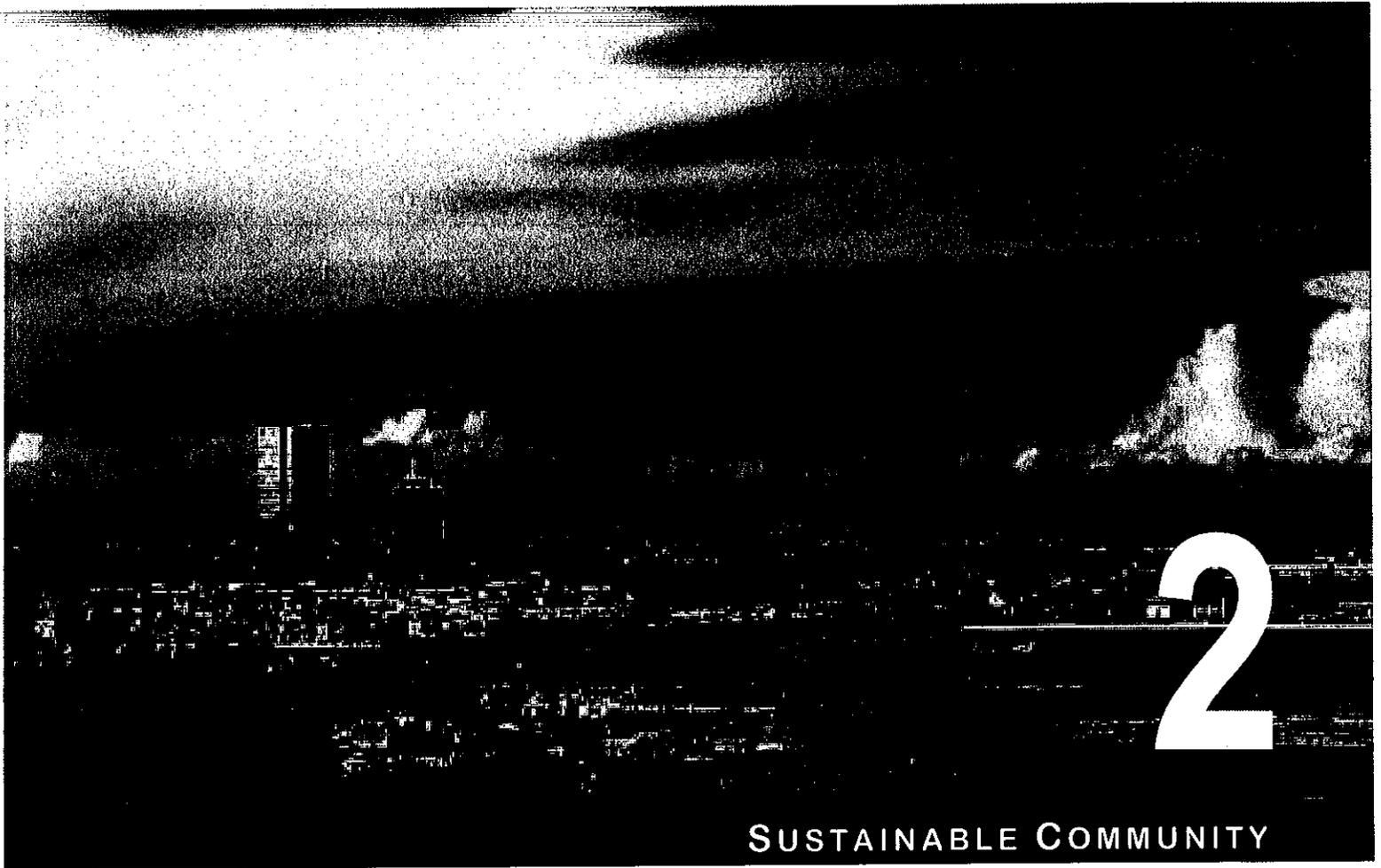
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2.1 Vision

Since the beginning of the preparation of 2030 General Plan in 2002, and especially since the adoption of the previous 2020 General Plan in 1990, no other topic has emerged to dominate our thinking about the future like climate change and sustainability. This chapter, Sustainable Community, was added in response to the need to better understand and address the cutting edge environmental and energy issues that are critical to our common long term future: global warming and climate change, sea level rise, energy conservation and generation, long term water supply and efficiency of use.

Oxnard faces both challenges and opportunities related to sustainable development as we work to fulfill a vision of responsibly living with Nature, rather than living off of Nature.

- Our moderate climate reduces need for energy for heating and cooling. We should push ourselves to further reduce our need for traditional carbon-based power and utilize renewable local sources of energy when feasible.
- Our local groundwater, water conservation practices, and increasing reuse of wastewater should greatly reduce our reliance on imported water.

- Our relatively compact development pattern lends itself to a much greater use of local transit, small electric or similar urban vehicles, and bicycles.
- Our flat terrain and predictable periods of rain favor a much greater use of bicycles and walking, leading to better health as well as reduced traffic congestion, energy consumption, and air pollution.
- Our agricultural economy suggests we may increasingly reduce the carbon footprint of our food consumption by eating what we grow locally, and growing what we eat locally.

Taken as a whole, Oxnard is uniquely poised to take a leading role in sustainable living and development. This chapter presents goals, policies, and an implementation program that bring leading edge and innovative sustainable topics into one place, leading to a coordinated approach to a healthy, humane, and harmonious way of life that respects and preserves the environment.

The Sustainable Community Element is closely related to the Environmental Resources Element (chapter 5) as both chapters address similar issues. The Sustainable Community chapter is a new optional addition to the General Plan and is focused on the 'big picture' of achieving a sustainable community. Its purpose is to explore, analyze, and promote new and innovative sustainable growth and energy practices that will help the City of Oxnard flourish and be preserved for current and future generations. Chapter 5 is the "day-to-day" environmental activities that are just as important as the "big picture" of Chapter 2 but are program and polices largely already in place. There is overlap between the two chapters.

Furthermore, this chapter addresses intent and objectives outlined in recent state legislation and planning initiatives, such as the California Global Warming Solutions Act of 2006 (AB32 and the follow-up AB 375) and "green building" practices. This section should be used in conjunction with the other chapters in formulating future land use decisions affecting the City.

The Sustainable Community Chapter is organized under the following categories:

- **Existing Conditions** addresses current environmental circumstances and state laws not included and/or updated since the Background Report was published in 2006. There is no corresponding chapter in the Background Report for sustainable community.
- **Goals and Policies** direct the City in various ways to research, evaluate, demonstrate, implement, and monitor various new and more innovative ways to achieve a sustainable community.

2.2 Key Terms

The following are key terms and their definitions:

Agrifiber is any fibrous material generated from agricultural / bio-based products. Can be used with binders to create bio-composite agriboard. Generally wood is not included in this definition.

Average Dry Weather Flow. The Average Dry Weather Flow is the average non-storm flow over 24 hours during the dry months of the year (May through September). It is composed of the average sewage flow and the average dry weather inflow/infiltration.

California Air Resources Board (CARB) The California Air Resources Board is the State's lead air quality agency consisting of an eleven-member board appointed by the Governor and several hundred employees. CARB is responsible for attainment and maintenance of the state and federal air quality standards, and is fully responsible for motor vehicle pollution control. It oversees county and regional air pollution management programs.

California Code of Regulations (CCR), Title 24. The California Code of Regulations, Title 24 is also known as the California Building Standards Code. This code dictates the building standards and design requirements for structures in California.

Carbon Dioxide (CO₂). Carbon Dioxide is a naturally occurring gas, and also a by-product of burning fossil fuels and biomass, as well as land-use changes and other industrial processes. It is the principal greenhouse gas that affects the Earth's radiative balance.

Fossil Fuel. Fossil fuels are fuels such as coal, oil, and natural gas; so-called because they are the remains of ancient plant and animal life.

Fossil Fuel Combustion. Fossil fuel combustion is the burning of coal, oil (including gasoline), or natural gas. This burning, usually to generate energy, releases carbon dioxide, as well as combustion by-products that can include unburned hydrocarbons, methane, and carbon monoxide. Carbon monoxide, methane, and many of the unburned hydrocarbons slowly oxidize into carbon dioxide in the atmosphere. Common sources of fossil fuel combustion include cars and electric utilities.

Global Warming. Global warming is an increase in the temperature of the Earth's troposphere. Global warming has occurred in the past as a result of natural influences, but the term is most often used to refer to the warming predicted by computer models to occur as a result of increased emissions of greenhouse gases.

Green Building. A green building, also known as a sustainable building, is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. Green buildings are designed to

meet certain objectives such as protecting occupant health; improving employee productivity; using energy, water, and other resources more efficiently; and reducing the overall impact to the environment.

Greenhouse Gas Emissions. Greenhouse gas emissions are the release of any gas that absorbs infrared radiation in the atmosphere. Generally when referenced in terms of global climate they are considered to be harmful. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrochlorofluorocarbons (HCFCs), ozone (O₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

Groundwater. Groundwater is water in the saturated zone beneath the land surface.

Megawatts. Megawatts are a unit of power equal to one million watts. A watt is a unit used to measure power, equal to one joule per second. In electricity, a watt is equal to current (in amperes) multiplied by voltage (in volts).

Mixed-Use Development. Mixed-use development incorporates a range and variety of uses within a single development site, for example, retail, residential and business.

Permeable Surface. A permeable surface is a surface that allows water to infiltrate into the ground instead of blocking it and causing runoff.

Power Plant. A power plant is a central station generating facility that produces energy.

Publicly Owned Utilities. Publicly Owned Utilities are utility services and companies that are owned by customers and better cater to needs and satisfaction of customers than Investor Owned Utilities. Publicly Owned Utilities provide approximately 25 percent of California's electricity.

Sustainability. Sustainability refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Tidal Power. Tidal power is a renewable energy source that uses water and ocean tides to generate electricity.

Urea Formaldehyde. Urea formaldehyde is a transparent thermosetting resin or plastic used as an adhesive for wood products and other building materials. Formaldehyde gas can cause several health problems in humans, ranging from difficulty breathing to cancer.

Volatile Organic Compounds (VOCs). Volatile Organic Compounds are carbon-containing compounds that evaporate into the air (with a few exceptions). VOCs contribute to the formation of smog and / or may themselves be toxic.

VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

2.3 Existing Conditions

GLOBAL WARMING / CLIMATE CHANGE

Global warming and the resulting climate change have occurred many times throughout the course of Earth's existence caused naturally or, as is the current argument, by human actions. Global warming is occurring to some degree regardless of the natural and/or human cause and must be considered in long range planning.

Greenhouse Gas Emissions. Greenhouse gas emissions refer to a group of emissions that are generally believed to affect global climate conditions. Of all the greenhouse gasses, CO₂ is the most abundant climate change pollutant. CO₂ resulting from fossil fuel combustion comprised 81.0 percent of the total greenhouse gas emissions in California in 2002, and non-fossil fuel combustion CO₂ comprised 2.3 percent. California is considered the second largest emitter of greenhouse gasses in the United States next to Texas. California generates about half as much in CO₂ emissions as Texas. However, when considered at the individual's level, California is second lowest per capita CO₂ emitter in the nation; only the District of Columbia's per capita emissions are lower.

The State of California had adopted numerous greenhouse gas (GHG) laws, regulations, and policies. For example, State Law mandates development and adoption of regulations to achieve the maximum feasible reduction of GHG emitted from vehicular and other mobile sources to accomplish the attainment of the State standards (AB 1493, Pavely). Similarly, the State imposes a GHG emission standard on private electric utilities (SB 1368). The California Air Resources Board (CARB) is required to adopt regulation for the reporting and verification of statewide GHG emissions and to enforce compliance with a GHG emissions limit equivalent to 1990 levels (AB 32, California Global Warming Solutions Act of 2006).

Sea Level Rise. According to tide gage data, the sea level has been rising at an average global rate of approximately 1.8 mm per year for the past century. Satellite images starting in the early 1990's indicate an annual rate of approximately 2.8 mm per year. This has given flight to the idea that sea level may be increasing in the amount it rises, possibly due to global warming. The actual amount of land lost to rising sea levels varies based on geography, since land masses have been measured to be rising as well. Although typically along the California coast, land is rising at a slower pace than sea level. The effects of rising sea levels and warmer waters are great, and include loss of beachfront, larger and more powerful coastal waves, relocation or migration of wildlife, and possible loss or damage of waterfront properties, including docks and piers. Between now and 2100 there is predicted to be a rise in the global sea level, although there is still disagreement within the scientific community as to the amount.

ENERGY EFFICIENCY

The California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in national codes.
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions.
- Building standards, authorized by the California Legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

Most buildings can reach energy efficiency levels far beyond California Title 24 standards, yet many meet only the standard. Energy demands can be greatly reduced through encouraging the use of green building design, including materials, equipment, lighting, alternative energy sources, and structure maintenance. The building design should also consider building shape and site orientation to take advantage of solar power and natural lighting to boost energy-efficient heating and cooling systems. By using and encouraging alternative forms of energy and energy usage, the community can be an active participant in the reduction of green house gas emissions that contribute to global warming.

POWER GENERATION

A large source of GHG emissions is electricity generation. A shift from conventional power generation methods, such as fossil fuel power plants, would have a positive impact on sustainability. The Governor signed a bill in August 2006 that strives to create 3,000 megawatts of solar energy by 2017. The California Solar Initiative (CSI) will provide \$3.3 billion beginning in January 2008 for the Million Solar Roofs Program. The money will be used to provide incentives for existing and new residential, commercial, industrial, and agricultural buildings. It will also call for the Publicly Owned Utilities (POU) to offer incentive programs to its customers to switch to solar panels.

HEALTHIER LIFESTYLE THROUGH CLEANER TRANSPORTATION

Another large source of harmful CO₂ emissions comes from automobiles. There are many ways in which to go about moving to a more sustainable automotive community. The first step is to emphasize pedestrian-friendly environments. Many cities around the country have already adopted this type of development by designating pedestrian thoroughfares, wider sidewalks, and mixed-use development that allows people to walk to and from destinations. Similarly, another idea is to promote bicycle use. This can be done similarly to the pedestrian zones, and if executed properly will encourage bicycle usage and decrease auto dependency.

The fact that automobiles are a part of American society cannot be overlooked. They will always be mainstream in transportation. That is why it is important to consider ways to reduce their impact to air quality and communities. One way of doing this is to educate the public about the advantages of cars that use fuel more efficiently, as well as provide incentives for owning these cars instead of gas-intensive or older cars. Also, providing education on ways to get more mileage out of current cars is a simple enough agenda. Educational materials can also be prepared and distributed about the benefits of biking and walking, as well as the effect of cleaner air as a result.

OCCUPANT HEALTH AND SAFETY

Recent studies have revealed that buildings with good overall environmental quality can reduce the rate of respiratory disease, allergy, asthma, sick building symptoms, and enhance worker performance. The potential financial benefits of improving indoor environments have been proven to exceed costs by a significant factor. Providing adequate ventilation and a high-efficiency, in-duct filtration system ensures a dramatic and positive impact on indoor air quality. Air contaminant sources can be greatly minimized by the use of green building materials that feature low solvent adhesives and caulking, composite wood with no urea formaldehyde, and agri-fiber products. Better paints, stains and finishes containing lower levels of Volatile Organic Compounds (VOC's) also improve indoor air quality for building occupants and should be utilized. Volatile Organic Compounds are chemicals that out-gas to form smog and pollute the indoor air.

MATERIALS EFFICIENCY

Materials efficiency is a hallmark of sustainable development. The reuse of existing buildings and building materials conserves land and limited natural resources. The reuse and recycling of construction and demolition materials reduces construction costs while keeping additional materials out of landfills. Some common materials that can be reused for new construction products include concrete, asphalt, and steel. Also, the use of recycled-content products helps develop markets for recycled materials that are being diverted from California's landfills.

WATER EFFICIENCY

Water quantity, quality, availability, and treatment of wastewater for current and future development are addressed Chapter 5. The concept of wastewater recycling for irrigation use that then allows additional groundwater pumping for potable water is the city's innovative approach for long term water supply. The Oxnard Wastewater Treatment Plant is capable of treating 31.7 million gallons per day (39.6 mgd when current improvements are completed) Average Dry Weather Flow and 75.4 million gallons per day Peak Wet Weather Flow, suggesting a large potential for wastewater recycling. This treatment plant services the cities of Oxnard and Port Hueneme, the US Naval Base ventura County, Point Mugu Naval Air Station, and several unincorporated areas.

Another water conservation-related method is the use of permeable surfaces whenever possible for paved areas required with development. In addition to helping maintain underground water resources, permeable surfaces help to naturally filter storm water, and reduce run-off to catch basins and flood channels. Encouraging the use of green building standards, recycled water, and permeable paving materials within residential, commercial and industrial project designs would aid immensely in increasing the reliability of Oxnard's water supply.

LANDSCAPING EFFICIENCY

Trees and other non-woody vegetation are a natural air filtering system, which clean the air by filtering pollutants and producing oxygen. Strategic planting and conscientious stewardship of the existing tree cover allows for natural absorption of precipitation, and prevents rain from washing oil, auto coolant, pesticides and other chemicals into storm washes, rivers and lakes. Proactive planting and maintenance of trees lowers energy cost by providing shade and cooling the air, vehicles and structures. Open space and landscaping required by the City development code for public and private facilities is intended to create functional and hospitable settings for the building occupants. Green infrastructure is a public asset that must be strategically planned, encouraged and maintained by the City and its citizens.

Landscaping efficiency is also directly related to water efficiency when certain types of plants and trees are selected and landscapes are designed with Oxnard's climate and water supply in mind. Oxnard's mild Mediterranean climate allows for a large variety of plants and trees to grow, and choosing water efficient varieties that do not require large amounts of water will further add to City's sustainability. In southern California, 40 to 60 percent of residential water use is applied outdoors to irrigate landscapes. Without proper design and maintenance, landscape irrigation is notoriously inefficient, wasting up to 30 percent of all water applied. Fortunately, there are many new technologies and techniques available to greatly increase irrigation efficiency, providing an opportunity to reduce water consumption, protect the reliability of the City's water supply, and, in turn, increase overall sustainability.

PROJECT DESIGN EFFICIENCY

Of the total expenditures an owner will make over the course of the building's service lifetime, design and construction expenditures, the so-called "first costs" of a facility, will account for 5-10 percent of the total life-cycle cost of the structure. In contrast, operations and maintenance costs will account for 60-80 percent of the total life-cycle costs, with land acquisition, conceptual planning, renewal or revitalization, and disposal accounting for the remaining 5-35 percent.

Key elements of design pertaining to green building are performance standards, cost issues, materials selection, and building placement. Through implementation of the Improvement Measures noted below, the City intends to actively inform, encourage and guide the use of green building standards in

remodeling and designing new and existing developments and public facilities within the city.

SOLID WASTE

Solid waste management, waste prevention, and recycling services goals and policies are addressed Chapter 5 . The City utilizes a Three Cart System for household solid waste. Every residential household is allocated a recycling bin, a refuse bin, and a yard waste bin. Certain hazardous waste materials, such as paints and electronics, are prohibited from being placed in refuse carts and must be picked up separately by appointment or taken to designated drop-off locations. This new Three Cart System replaces the previous split carts with individual refuse and recycling bins. The former program also included a separate yard waste bin. The new system is geared to better promote recycling to encourage sustainability.

2.4 Related Policies in Other Chapters



Policies related to sustainable community are contained in other chapters and identified by the icon to the left.

2.5 Goals and Policies

Climate Change and Global Warming Awareness

Goal SC-1	Support and Participate in Global Warming and Climate Change analysis and programs.
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- SC-1.1 *Inventory Global Warming Emissions***
Inventory global warming emissions in City operations and in the community consistent with APCD and/or state guidelines.
- SC-1.2 *Support Statewide Global Warming Mitigation***
Continue to monitor the efforts of the California Air Resources Board and other agencies as the formulate mitigation strategies.
- SC-1.3 *Develop Greenhouse Gas Emissions Reduction Plan***
Develop a Greenhouse Gas Emissions Reduction Plan (Plan) that implements requirements adopted by the California Air Resources Board and/or the Ventura County APCD that includes the an inventory of 1990 greenhouse gas emissions and sets required reduction targets.

Sea Level Rise Awareness and Planning

Goal SC-2	Ensure that rising sea level is considered relative to coastal communities and properties.
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SC-2.1 ***Sea-Level Rise and Local Coastal Program***

Include best-available information regarding possible sea-level rise in the next revision of the Local Coastal Program, which should be initiated within two years.

SC-2.2 ***Monitoring Systems***

Consider a sea-level monitoring system that detects changes to coastal sea level and tidal change.

SC-2.3 ***Coastal Preparation***

Ensure that all new coastal developments take rising sea levels into consideration and take steps to minimize risk of damage or loss to life and property.

Energy Generation and Increased Efficiency

Goal SC-3	Energy efficiency performance and standards higher than California Title 24 Requirements and generation from renewable sources.
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SC-3.1 ***Ten Percent Ahead of Title 24***

Encourage new development to exceed the current (as updated) California Title 24 standards by at least ten percent by utilizing renewable energy systems and the use of solar water heating technologies and tankless water heaters and passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of buildings, where feasible

SC-3.2 ***New Residential Development***

Incorporate passive and active energy and resources conservation design and devices in new residential development and substantial remodels and/ or expansions.

SC-3.3 ***Municipal Energy Consumption***

Develop programs to reduce energy consumption within City government facilities and the City vehicle fleets by at least ten percent below 2005 levels.

- SC-3.4 *Promote Energy Reduction Programs***
Promote local and state programs that reduce private sector and institutional consumption of energy sources.
- SC-3.5 *Alternative Energy for Public Buildings***
Transition City and other semi-public and large energy users to solar and wind energy sources.
- SC-3.6 *Load Shifting Devices***
Consider installing devices on municipal buildings that reduce the power required to operate equipment and for shifting the equipment usage to off-peak hours.
- SC-3.7 *Targets for Zero-Emission Vehicles***
Meet or exceed state targets for zero-emission fuel vehicle miles traveled within the City by supporting the use of zero-emission vehicles (low speed “neighborhood electric vehicles”, utility low-range battery electric vehicles, mid-range “city electric vehicles”, full function battery electric vehicles, and fuel cell vehicles) within City policies and programs.
- SC-3.8 *Use of Solar Electric Generation***
Require new commercial and industrial development over 50,000 square feet to be designed to permit roof-top or other solar electric-generation equipment which could be installed and maintained by a third party through a solar generation easement.
- SC-3.9 *Require Use of Passive Energy Conservation Design***
Require the use of passive energy conservation by building material massing, orientation, landscape shading, materials, and other techniques as part of the design of local buildings, where feasible.
- SC-3.10 *Promote Voluntary Incentive Programs***
Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional and public buildings, including participation in the Ventura County Regional Energy Alliance (VCREA).
- SC-3.11 *Wind and Tidal Power Generation***
Evaluate the feasibility of incorporating wind and tidal power generation into existing power supply to reduce reliance on emission producing power plants.
- SC-3.12 *Waste Conversion to Energy Facility***
Evaluate the feasibility for the design and construction of a conversion technology capable of converting municipal solid waste into alternative sources of energy.

Green Buildings

Goal SC-4	Energy and resources conservation and the use of green building design.
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SC-4.1 ***Green Building Standards for Developers***

Adopt and maintain development regulations that require and/or encourage green building development.

SC-4.2 ***Green Development Standards for Public Buildings***

Support green development standards for all new and refurbished public buildings and facilities.

Partnerships

Goal SC-5	Share ownership and responsibility for designing, developing, and delivering a successful sustainable community by creating partnerships for implementation.
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SC-5.1 ***Green Business Council***

Support the creation of a local green business council that provides information exchange and promotes sustainable business practices that balance environment, equity, and economy.

SC-5.2 ***Organize Volunteer Work Days***

Set up days where citizens can volunteer and participate and “green practices” such as planting trees, cleaning up parks, or updating public areas or buildings with new sustainable amenities.

SC-5.3 ***Community Gatherings and Workshops***

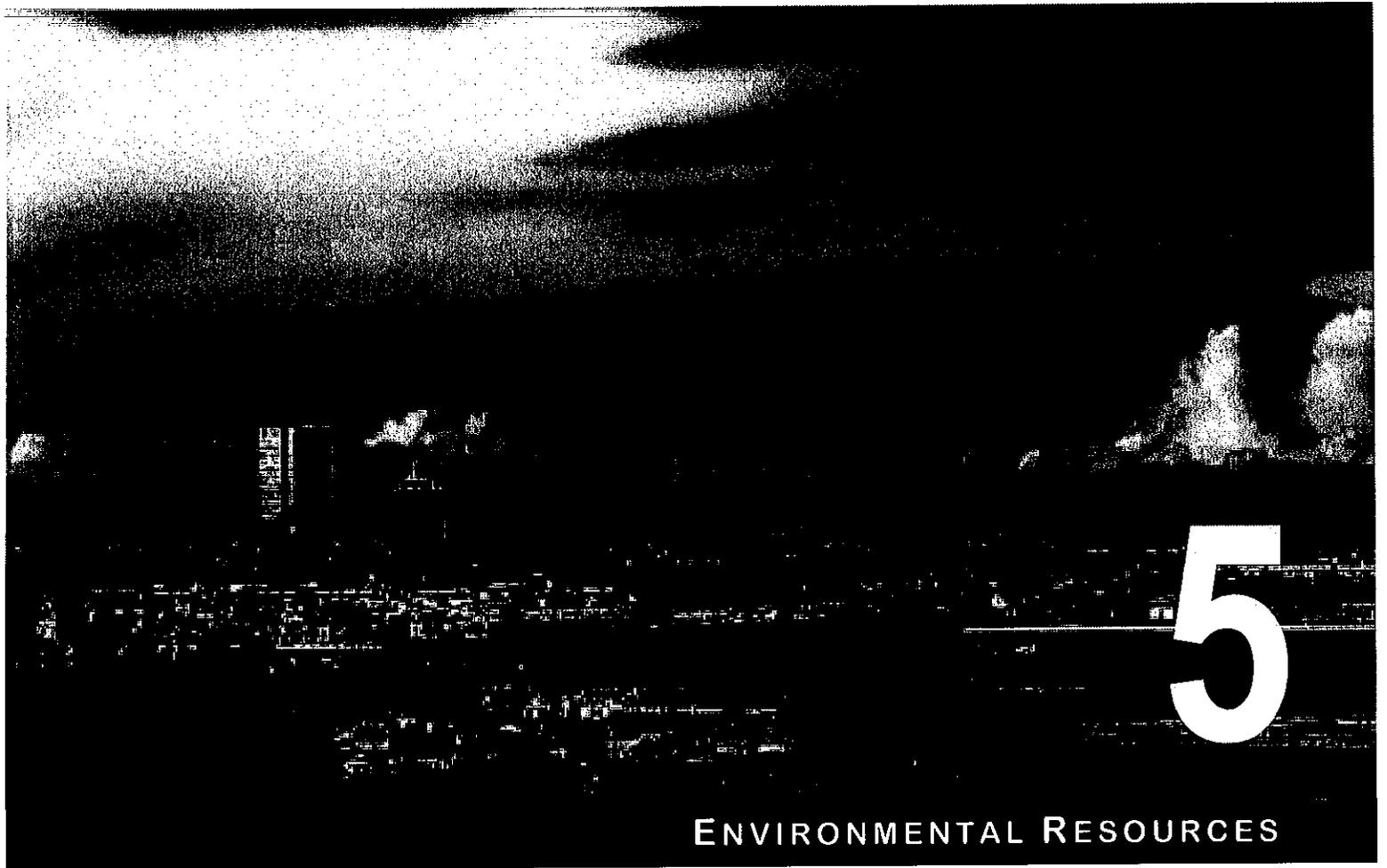
Encourage community involvement by hosting community events such as picnics and educational workshops that will promote sustainability and encourage public involvement.

SC-5.4 ***Coordinate with Local Utility Providers and VCREA***

Coordinate with local utility providers and the Ventura County Regional Energy Alliance (VCREA) to promote public education energy conservation programs to increase the use of solar photovoltaic systems and other technology in new and existing residential, commercial, institutional and public buildings.

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5.1 Vision

The vision for the Environmental Resources Chapter is that the City increases its responsible stewardship of the environment in full compliance with state and Federal laws, and strives to exceed in a position of leadership in these areas. The Environmental Resources chapter is closely related to the new Chapter 2, Sustainable Community, as both chapters address environmental issues. This chapter, however, serves primarily as the compendium of well-established goals and policies that have long been required by State law and routinely included in general plans. An example would be that Chapter 2 talks about developing alternative sources of energy and reducing greenhouse gases while this chapter focuses on issues such as preventing oil spills, regulating underground storage tanks, and siting transmission lines - activities that have been underway for decades. Chapter 5 "day-to-day" environmental activities are just as important as the "big picture" of Chapter 2. There is overlap between the two chapters and they should be used in tandem when reviewing environmental issues.

5.2 Key Terms

The following are key terms used in this chapter:

Aquifer. An aquifer is an underground layer of permeable rock, sand, or gravel that contains water, and is sometimes referred to as a water table.

Groundwater Basin. A groundwater basin is an area underlain by permeable materials capable of furnishing a significant supply of groundwater to wells or storing a significant amount of water.

Overdraft. Overdraft is a condition of a groundwater basin or aquifer in which withdrawals exceed inflow (i.e., more water is removed than put back in).

Sensitive Natural Community. A sensitive natural community is a plant and/or animal community that is rare in this area, provides important living and breeding for wildlife, are structurally complex, and are special concern to local, state, or federal agencies. The California Department of Fish and Game (CDFG) tracks sensitive natural communities in the California Natural Diversity Database (CNDDDB) and the California Environmental Quality Act (CEQA) identifies the elimination or substantial degradation of such communities as a significant impact.

Special-Status Species. Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to habitat loss or population decline, are recognized by federal, state, or other agencies. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report.

View Corridor. A view corridor is a highway, road, or trail that offers travelers a view of landscape of man made features.

Viewshed. A viewshed is the area that can be seen from a given vantage point and viewing direction. A viewshed is composed of foreground items (items closer to the viewer) that are seen in detail, and background items (items at some distance from the viewer) that frame the view. As a person travels along a roadway (a view corridor), the viewshed changes, with the foreground items changing rapidly and the background items remaining fairly consistent.

Wetlands. Wetlands are ecologically complex habitats that support a variety of both plant and animal life. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to other waters.

5.3 General

**Goal
ER-1**

Protected natural and cultural resources, agriculture, and open spaces

ER-1.1 *Protect Oxnard's Natural and Cultural Resources*


Protect the City's natural resource areas, fish and wildlife habitat, scenic areas, open space areas, parks, and cultural and historic resources from encroachment or harm.

ER-1.2 *Protect Surrounding Agriculture and Open Space*


Protect open space and agricultural uses around Oxnard through continued adherence to the Guidelines for Orderly Development, Ventura County Greenbelt programs, and to the intent of the Save Open-Space and Agricultural Resources initiative.

5.4 Biological Resources

**Goal
ER-2**

Maintenance and enhancement of natural resources and open space

ER-2.1 *Restoration of Ormond Beach Wetlands*


Encourage the preservation, restoration, and enhancement of the Ormond Beach wetlands and Mugu Lagoon.

ER-2.2 *Protection of Sensitive Habitat*


Designate sensitive habitat areas as resource protection or open space land uses.

ER-2.3 *Promote Areas for Open Space*


Reserve, preserve, and promote areas particularly suited for open space/recreational uses. Appropriate public access to these resources shall be preserved, enhanced, restored, and properly controlled.

ER-2.4 *Design Review Process*


Use the environmental and design review process to favor the Ormond Beach Wetlands restoration plan, protect designated sensitive habitat, and promote open space.

Water Habitats

Goal ER-3	Protected, restored, and enhanced of water-related habitats and their associated plant and wildlife species
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ER-3.1 *Preservation of Riparian Habitat*



Encourage the preservation and enhancement of the riparian habitat along the Santa Clara River, in the McGrath Lake vicinity, and within Ormond Beach wetlands.

ER-3.2 *Review of Development Proposals*



Review development proposals in accordance with applicable Federal, State, and local statutes protecting special-status species and jurisdictional wetlands and be open to requiring greater protection.

ER-3.3 *Request Mitigation Measures from Other Agencies*

Whenever possible, request appropriate feasible County, State, and Federal agency mitigation measures.

ER-3.4 *Reduce Impact on Harbor, Bay, and Ocean Water Ecology*



Condition or comment on any applications received for dredging to control turbidity and prevent interruption with spawning or migratory cycles, condition and conduct harbor and bay development in a manner that will result in the lowest reasonable level of contamination, monitor vessel wastes and report them to the proper agency, and continue to comment on the potential effects on ocean water quality of new development and offshore operations (oil, gas extraction, and LNG terminals) operations within the Santa Barbara Channel.

ER-3.5 *Reduce Construction Silt and Sediment*

Require that construction-related silt and sediment be minimized or prohibited to minimize temporary impacts on biological resources.

Sensitive Habitat

Goal ER-4	Protected, restored, and enhanced sensitive habitats
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ER-4.1 *Encourage Protection of Sensitive Habitat*



Encourage protection of sensitive habitat protection and enhancement of contiguous areas over small-segmented remainder parcels.

ER-4.2 Limiting Activities in Sensitive Areas

Limit the recreational activities in open space areas with sensitive habitats to those activities that have minimal impact.

ER-4.3 Designation of Resource Protection Areas

Designate areas that encompass sensitive habitat areas and provide areas for educational and research purposes.

ER-4.4 Loss of Sensitive Habitats

Consider loss of sensitive habitats due to development to be a significant environmental impact. All development that is proposed to disturb or remove sensitive habitat shall demonstrate appropriate feasible mitigation.

ER-4.5 Planning in Sensitive Areas

Require careful planning of new development in or near areas that are known to have particular value for biological resources to maintain sensitive vegetation and wildlife habitat.

ER-4.6 Resource Protection Zoning Policies

Adopt and/or continue to maintain resource protection zoning designation for sensitive habitats to prevent the encroachment of detrimental land uses.

5.5 Water Resources**Goal
ER-5**

Well managed water supply and wastewater treatment programs that together meet expected demand, prevent groundwater overdraft, and ensure water quality.

ER-5.1 Wastewater Treatment

Treat all wastewater in compliance with approved discharge permits.

ER-5.2 208 Wastewater Control Plan

Support updating the "208" Wastewater Control Plan to control urban and nonurban runoff.

ER-5.3 Reducing Dependence on Groundwater

The City shall maintain a minimal dependence on Basin 4A groundwater consistent with the Groundwater Resource Encroachment and Treatment (GREAT) Program and support the policies of the local groundwater management agency to protect, enhance, and replenish the aquifers underlying the Oxnard Plain.

ER-5.4 Wastewater Monitoring

Monitor all wastewater discharges on a periodic basis to ensure that discharges comply with approved permits.

ER-5.5 Abandoned Water Wells

Require immediate capping of abandoned water well at the time of abandonment.

ER-5.6 208 Groundwater Plan

Adhere to the recommendations of the 208 Plan regarding groundwater extractions.

ER-5.7 Minimizing Paved Surfaces

Require minimization and/or permeability of paved surfaces in new developments and replacement paving, where feasible.

5.6 Aesthetic Resources

Goal ER-6	Attractive new development with community and private open space and identity.
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ER-6.1 New Development Aesthetics

Ensure that new development incorporates open space areas that provide community and neighborhood identity, private exterior open space for each housing unit, and minimize conflicting land uses and noise generators.

Scenic Resources

Goal ER-7	Protected and enhanced natural setting and scenic resources
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ER-7.1 Incorporate Views in New Development

Preserve important public views and viewsheds by ensuring that the scale, bulk and setback of new development does not significantly impede or disrupt them and ensure that important vistas and view corridors are enhanced. Require development to provide physical breaks to allow views into these vistas and view corridors.

ER-7.2 Protect and Enhance Major Scenic Resources

Protect and enhance the scenic resources of the beaches, Channel Island Harbor, farmland, the Channel Islands, and surrounding mountains.

ER-7.3 Preserve Views of Small Aesthetic Resources

Preserve views of significant small-scale plant communities including wetlands, riparian vegetation, ponds wherever possible.

ER-7.4 Develop Tree Management Program and Ordinance

Identify and discourage the removal of significant trees on private and public property by establishing a tree inventory and tree management ordinance. Where removal is required, require a two-for-one replacement or transplantation.

ER-7.5 Siting of Transmission Lines

Work with utility companies to avoid transmission lines interfering with scenic views.

ER-7.6 Control of Lighting and Glare

Require that all outdoor light fixtures including street lighting, externally illuminated signs, advertising displays, and billboards use low-energy, shielded light fixtures which direct light downward and, where public safety would not be compromised, encourage the use of low-pressure sodium lighting for all outdoor light fixtures.

Roadway Aesthetics

Goal
ER-8

Improved aesthetic quality of major roadways and entrances

ER-8.1 Medians and Parkways

Ensure that major arterials include landscaped medians and parkways.

ER-8.2 Design of Sound or Zone Walls

When sound or zone walls are used, ensure that they are visually interesting and well landscaped.

ER-8.3 Design of Transportation Related Structures

Design ramps and flyovers to include appealing features, designed in concert with surrounding structures where appropriate, and that add to the overall character of the surrounding area including design features and public art.

Coastal Resources

Goal ER-9	Protected coastal resources as a significant landscape feature to be experienced by residents and visitors
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ER-9.1 Protect Shoreline



Protect the shoreline and views to and along the Pacific Ocean, recognizing their value as natural and recreational resources.

ER-9.2 New Coastal Development

Design new development along primary access routes to the beach so as to maintain and enhance the scenic quality of such routes.

Enhanced Character

Goal ER-10	Enhanced perceived character and quality of the City of Oxnard
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ER-10.1 Enhance Historic Character

Enhance the historic and visual amenities of the City's downtown core and the Henry T. Oxnard historic district.

ER-10.2 Enhance Neighborhood Diversity

Enhance neighborhood diversity and reinforce the desirable elements of neighborhood character and quality through incorporation of design guidelines, use of landscape materials, and encouraging new developments to integrate historical and culturally significant elements into proposed projects.

ER-10.3 Residential Street Lighting

Provide residential street lighting that is appropriate in appearance, scale, and intensity for residential use.

ER-10.4 Human Scale Development

Ensure that all new development emphasizes a human, pedestrian scale and minimizes its effect on the area's sensitive visual resources.



See also the policies under Chapter 3, Community Development

Landscaping

Goal ER-11

Enhanced landscape quality with an emphasis on landscape practices, management and plant species that are appropriate to Oxnard and its coastal climate

ER-11.1 Promote use of Native and Water Wise Plants

Promote the development of a native, drought-tolerant landscape character throughout the City that re-enforces a unified and cohesive landscape character.

5.7 Cultural Resources

Goal ER-12

Identification, protection, and enhancement of the City's archaeological, historical, and paleontological resources

ER-12.1 Archaeological Resource Surveys

Continue to require a qualified archaeologist to perform a cultural resources study prior to project approval. Inspection for surface evidence of archaeological deposits, and archaeological monitoring during grading should be required in areas where significant cultural resources have been identified or are expected to occur.

ER-12.2 Mitigating the Impact of New Development on Cultural Resources

Ensure that alternatives are considered, including planning construction to avoid archeological sites, deeding archaeological sites into permanent conservation easements, and planning parks, greenspace, or other open space to incorporate archaeological sites in the event that development threatens significant archaeological resources.

ER-12.3 Development Applicant

Continue to require project applicants to have a qualified archaeologist conduct a record search at the South Central Coast Information Center located at California State University Fullerton and other appropriate historical repositories, conduct field surveys where appropriate, and prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports) prior to project approval.

ER-12.4 Historic Preservation

Support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and districts. Where applicable, preservation efforts shall confer with the Ventura County Cultural Heritage Board and

conform to the current Secretary of the Interior's Standards for Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Building and the California Office of Historic Preservation.

ER-12.5 State Historic Building Code for Adaptive Reuse

Utilize, when possible, the State Historic Building Code for historic properties so as to encourage adaptive reuse.

ER-12.6 Identification of Archaeological Resources

Continue to require that grading and construction work on the project site be suspended until the significance of the features can be determined by a qualified archaeologist/paleontologist in the event that archaeological/paleontological resources are discovered during site excavation

ER-12.7 Native American Remains

Continue to comply with State laws relating to the disposition of Native American burials consistent with the CEQA Guidelines (Section 15064.5) if human remains of possible Native American origin are discovered during project construction.

ER-12.8 Historical Resource Inventory

Maintain a historical resource inventory and discourage demolition or alteration of historical buildings unless they are declared unsafe or unless proper notice has been given consistent with applicable City ordinances.

5.8 Agriculture and Soil Resources

Goal ER-13	A viable agricultural industry
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ER-13.1 Sustainable Agricultural Industry

Promote the continuation of existing agricultural operations within the planning area.

ER-13.2 Support County Initiatives

Support right-to-farm policies that promote the viability of agriculture in the County.

ER-13.3 Agricultural Partnerships

Work with local and regional agencies and agricultural conservation/mitigation, and local agricultural interests to promote the viability of local agriculture.

ER-13.4 Agricultural Economic Contribution

Recognize the employment and economic benefits to the community in City reports and in the media.

Soil Management
**Goal
ER-14**

Maintained and enhanced soil resources, reduced erosion, and improved agricultural productivity

ER-14.1 Soil Conservation and Transfer

Encourage the conservation of agricultural soils by requiring, if feasible and warranted by expert opinion, the transfer of topsoil from agricultural land being developed for urban uses.

ER-14.2 Best Agricultural Practices

Work with the County Agricultural Commissioner to promote best agricultural practices, especially with regards to irrigation and runoff, on land still being farmed within the City.

Protect Agriculture
**Goal
ER-15**

Agricultural lands protected from urbanization

ER-15.1 Conservation of Agricultural Open Space

Evaluate using conservation easements, transferable development rights, and/or land banking to establish agricultural and/or open space areas to be managed by either public or private conservation organizations or agencies as a means to supplement and/or substitute for the SOAR ordinance.

ER-15.2 Greenbelt Policies

Continue the commitment of maintaining the existing Oxnard-Camarillo and Oxnard-Ventura Greenbelt Policies.

ER-15.3 Support Land Conservation Act Contracts

Encourage the use of Land Conservation Act contracts and other related agreements to offset the costs to property owners of identified agricultural lands.

ER-15.4 Urban / Agricultural Buffer Zones

Ensure adequate buffers between residential and agricultural uses, such as open space, recreational facilities, utility easements, and parking areas. Adequate fencing should be provided around agricultural areas to prevent vandalism.

ER-15.5 Rerouting Roads and Utilities around Agricultural Areas

Develop new roads and utilities around prime agricultural areas rather than through them, where feasible.

5.9 Mineral Resources

<p>Goal ER-16</p>	<p>Well managed extraction of mineral resources that protects the environment and surrounding land uses from adverse effects of extraction operations</p>
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ER-16.1 Monitoring Mining Uses

Monitor and comment on the appropriateness of mining activities conducted under the authority of adjacent jurisdictions.

ER-16.2 Reclamation of Mineral Resources

Promote the efficient reclamation of mineral resources areas.

ER-16.3 Compatibility with Existing Land Uses

Ensure that any mining operations produce the least amount of incompatibility with surrounding, existing land uses (i.e., limited hours of operation, pest control, etc.) and adequately mitigate environmental and aesthetic impacts.

ER-16.4 Limiting Special Production Techniques

Require that specialized production techniques, such as slant drilling, limit the land area committed to oil recovery and to extract such resources adjacent to existing development.

5.10 Air Quality Resources

<p>Goal ER-17</p>	<p>Improved air quality and minimized adverse effects of air pollution on human health and the economy</p>
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ER-17.1 Incorporate AQMP Mitigations



Incorporate construction mitigation measures recommended or required by the current Ventura County Air Quality Management Plan (AQMP).

ER-17.2 Transportation Management

Employ best traffic management practices such as bus turnouts and traffic signal synchronization in order to reduce traffic-related air emissions impacts.

ER-17.3 Reducing Vehicle Use

Require commercial developers to improve public transit service between residential and employment or shopping centers, bike lanes and protected bicycle parking areas, and other project features that would reduce the need for automobile trips related to the development.

ER-17.4 Transportation Management Associations

Require Transportation Management Associations for projects that may have adverse air quality impacts related to mobile sources, and contributions to off-site TDM funds to reduce residual impacts that cannot be mitigated on a project-specific basis.

ER-17.5 Reducing CO Exposure at Congested Intersections

Require mitigation measures that consider prohibiting the construction of residences or buildings lacking ventilation systems an appropriate distance established by further site-specific analyses from the affected intersection for new construction at congested intersections with the potential for excessive CO exposure to sensitive receptors.

ER-17.6 Emission Control Devices

Require all construction equipment to be maintained and tuned to meet appropriate EPA and CARB emissions requirements and when new emission control devices or operational modifications are found to be effective, such devices or operational modifications are required on construction equipment.

ER-17.7 Reducing Construction Impacts during Smog Season

Require that the construction period be lengthened to minimize the number of vehicles and equipment operating at the same time during smog season (May through October).

ER-17.8 Minimizing Dust and Air Emissions through Permitting Requirements

Continue to require mitigation measures as a condition of obtaining permits to minimize dust and air emissions impacts from construction.

ER-17.9 Mitigation Monitoring

Ensure that projects with identified air quality impacts in their respective EIRs are subject to effective mitigation monitoring as required by AB 3180.

ER-17.10 Regional Cooperation

Cooperate with other local, regional, and State agencies in implementing air quality plans to achieve State and Federal Ambient Air Quality Standards.

ER-17.11 *Develop Regional Partnerships*



Participate with cities, surrounding counties, and regional agencies such as VCOG and VCTC and SCAG to address cross-jurisdictional and regional transportation and air quality issues.

ER-17.12 *Consultation with Ventura County Air Pollution Control District*



Consult with the Ventura County Air Pollution Control District (VCAPCD) during CEQA review for projects that require air quality impact analysis and ensure that the VCAPCD is on the distribution list for all CEQA documents.

ER-17.13 *Support Regional Attainment Plans*



Support recommendations to reduce air pollutants found in the VCAPCD local attainment plans and use its regulatory authority to mitigate “point” sources of air pollution (e.g., factories, powerplants, etc.).

ER-17.14 *Use VCAPCD Air Quality Assessment Guidelines*



Use the VCAPCD Air Quality Assessment Guidelines for determining and mitigating project air quality impacts and related thresholds of significance for use in environmental documents. The City shall continue to cooperate with the VCAPCD in the review of development proposals.

ER-17.15 *Co-locate Ancillary Services*



Support the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) at major employment centers for the purpose of reducing midday vehicle trips.

ER-17.16 *Support California Air Resources Board*



Monitor and support the efforts of the California Air Resources Board, to formulate mitigation strategies, if any that may be implemented by local government. If and when any such strategies become available, the City shall consider whether to implement them in some form, such as, for example, by imposing new mitigation measures on new development.

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SAFETY & HAZARDS

6.1 Vision

The State requires Safety and Noise Elements as components of general plans. This general plan has combined these two elements into a comprehensive Safety and Hazards Chapter. There is no higher priority for a local government than the health, safety, and welfare of its residents and visitors. Oxnard is a relatively safe community from the point of view of natural hazards that appear on the news on a regular basis. A mountain wildfire blowing in from the east or north is very unlikely to significantly impact the City other than temporary air quality impacts and perhaps, at worst, scattered embers. There are no hillsides to slide during the rainy season. The Santa Clara River is wide and has a very large capacity for flood containment, although there are several areas within the City that do have shallow flooding during high rain events. The alluvial soil and high water table do raise risk of damage to certain types of buildings under certain types of nearby and/or powerful earthquakes. An offshore earthquake or underwater landslide could create a tsunami in our direction with little warning, leading to possible extensive damage along the shore. Railroads carry hazardous materials through the City and the light industrial and agricultural uses within the City store, process, and transport hazardous materials. But, there have been few serious events that exposed large numbers of people to a significant safety risk. The intent is to continue to improve on Oxnard's relatively low risk exposure, which is the vision of Chapter 6, Safety.

6.2 Key Terms

The following are key terms related to both topics.

Attenuation. Reduction in the level of sound resulting from absorption by the surrounding topography, the atmosphere, distance, barriers, and other factors.

Community Noise Equivalent Level (CNEL). CNEL is used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels. Leq values (equivalent sound levels measured over a 1-hour period - see below) for the evening period (7:00 p.m. to 10:00 p.m.) are increased by 5 dB, while Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) are increased by 10 dB. For a given set of sound measurements, the CNEL value will usually be about 1 dB higher than the Ldn value (average sound exposure over a 24-hour period - see below). In practice, CNEL and Ldn are often used interchangeably.

Day-Night Average Sound Level (Ldn). Ldn represents an average sound exposure over a 24-hour period. Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) increased by 10 dB to reflect the greater disturbance potential from nighttime noises.

Drainage Channel. An open channel such as a swale, constructed channel, or natural drainage course that conveys runoff.

Federal Emergency Management Agency (FEMA). FEMA is the federal agency that regulates floodplains and manages the flood insurance program.

Floodplain. Land adjacent to a stream, slough, or river that is subject to flooding or inundation from a storm event. FEMA defines the floodplain to be the area inundated by the 100-year floodplain.

Governor's Office of Emergency Services (OES). OES is the state agency charged with the responsibility to assist local government in preparing for and responding to any type of natural or manmade disaster in California.

Hazardous Materials. A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).

High-Risk Use. Any use that may have an inherent potential for significantly contaminating soils, groundwater, or air and that may affect human and biological health, safety, and welfare through upset, explosion, fluid or airborne leakage.

Liquefaction. Liquefaction in soils and sediments occurs during earthquake events when material is transformed from a solid state to a liquid state because of increases in pressure in the pores (the spaces between soil particles). Earthquake-induced liquefaction most often occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with some clay content.

Noise Contours. A cartographic feature that connect measurement points of equal noise exposure (typically 65, 70, 75 DNL).

Sensitive Receptors. Sensitive receptors are residential areas, hospitals, child and daycare facilities, convalescent homes and facilities, schools, and other similar land uses.

6.3 Geologic, Seismic, and Soil

Goal SH-1

A safe community.

SH-1.1 Minimize Liquefaction Risk

Ensure that structures for human occupancy are only constructed or placed on a potential liquefaction site if the approved geological report shows that an acceptable hazard risk would be created and/or required mitigation measures are met.

SH-1.2 Minimize Subsidence Trends



Avoid increases in the level of groundwater extraction as a method for meeting new water demands if the extraction leads to subsidence, or unless a comprehensive reinjection program is approved and implemented to offset extractions.

SH-1.3 Location of City Emergency Services

Locate City emergency services facilities in buildings and/or areas of lowest hazard risk whenever possible.

Minimize Damage

Goal SH-2

Minimal damage to structures, property, and infrastructure as a result of geologic, flood, fire, hazardous materials, or airport events.

SH-2.1 Building Code Standards

Require that all new buildings and alternations to existing buildings be built according to the seismic requirements adopted within the most current City of Oxnard Building Code, or its adopted equivalent.

SH-2.2 Soil, Geologic, and Structural Evaluation Reports

Require that adequate soils, and geologic and structural evaluation reports be prepared by registered soils engineers, engineering geologists, and/or structural engineers, as appropriate, for applicable development.

SH-2.3 Required Geologic Reports

Continue to require the submission of a geological report for proposed development located in a potential liquefaction area.

SH-2.4 Liquefaction Report Waivers

Allow the waiver of the liquefaction reports only in certain situations where it can be shown that that groundwater or geologic conditions do not constitute a liquefaction hazard.

SH-2.5 Soil Investigations

Continue to require a complete site-specific soils investigation that addresses liquefaction and compressible soil characteristics and identifies construction techniques or other mitigation measures to prevent significant impacts upon the proposed development.

SH-2.6 Mitigating Seismic Hazards

Where necessary, utilize the expert mitigation measures such as those identified in Special Publication 117: Guidelines for Analyzing and Mitigating Seismic Hazards in California (prepared by the Southern California Earthquake Center) to minimize risk associated with seismic activity.

SH-2.7 Financial Assistance for Seismic Upgrades

Request federal and state financial assistance and/or develop local assistance to implement corrective seismic safety measures recommended for qualifying existing buildings and structures.

6.4 Natural Hazards

<p>Goal SH-3</p>	<p>Preserved coastline and beaches and minimized beach erosion</p>
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SH-3.1 Protecting the Littoral System



Continue to actively participate in the Beach Erosion Authority for Control Operations and Nourishment (BEACON), and deny future developments that will not implement feasible mitigations to avoid significant adverse impacts on the function of the littoral system.

SH-3.2 Dredging for Beach Sand Replenishment



Support and encourage the regular dredging of Inland waterways, subject to applicable review by relevant agencies, and evaluate the usefulness and need of using the dredged sand for beach replenishment.



SH-3.3 Monitoring Projects That May Impact the Beach

Closely monitor public works and private development proposals outside of Oxnard that may impact beach quality.

6.5 New Development Mitigations

Goal SH-4

New development required to take necessary precautions prior to any construction to mitigate hazards and protect the health and safety of the inhabitants

SH-4.1 Location of New Development

Encourage new development to avoid areas with high geologic, tsunami, flood, beach erosion, and fire or airport hazard potential.

SH-4.2 New Development Flood Mitigation

As a condition of approval, continue to require new development to mitigate flooding problems identified by the National Flood Insurance Program and/or other expert information.

SH-4.3 Updating Flood Insurance Rate Maps

Continue to provide information to the Federal Emergency Management Agency (FEMA) to ensure that Flood Insurance Rate Maps (FIRM) are updated periodically.

SH-4.4 Avoiding Blockage of Natural Drainage



Continue to review development proposals to ensure that the capacity or ability of natural drainage is not impacted.

6.6 Emergency Preparedness

Goal SH-5

Emergency preparedness through the provision of adequate fire and police protection, infrastructure, public education, EOC planning and procedures, and outreach programs

SH-5.1 Coordination of Disaster Services

Coordinate with the County Office of Emergency Services, other cities, US Navy, State OES, State Emergency Operations Center (EOC), and FEMA to coordinate emergency preparedness planning.

SH-5.2 Continued Evaluation of Emergency Response Plans

Continue to evaluate, develop, and practice emergency response plans in light of changing natural and man made risks and hazards, and in coordination with County, State, and Federal emergency planning.

SH-5.3 Volunteer Citizen Groups

Solicit and work with volunteer citizen disaster groups for emergency response assistance.

SH-5.4 Location of Private Emergency Response Facilities

Monitor and encourage private sector emergency response facilities such as hospitals, emergency power generators, and cell-phone utilities in areas of low risk.

SH-5.5 Update Emergency Operation Plan

Support and periodically update the City's Emergency Operations Plan, to meet current federal, state, and local emergency requirements.

SH-5.6 Access and Evacuation Corridors

Ensure that access and evacuation corridors are identified in the event of a major emergency.

SH-5.7 Infrastructure Security Programs

Develop, implement, evaluate, and revise security programs for key infrastructure such as the water and wastewater.

SH-5.8 Hazard Awareness and Preparedness Education

Continue to promote natural hazards awareness and preparation education and emergency procedures among residents.

6.7 Noise

Goal SH-6	A quiet residential environment and safe working environmental in terms of exposure to and/or generation of noise
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SH-6.1 Noise Abatement Programs

Promote intergovernmental noise abatement coordination and public information programs.

SH-6.2 State Noise Insulation Standards

Continue to enforce State Noise Insulation Standards for projects in high noise environments and require developers to comply with noise mitigation measures, designed by an acoustical engineer.

SH-6.3 Sound Attenuation Measures

Promote, where feasible, alternative sound attenuation measures such as berms, heavy landscaping, a combination of berms and landscaping, or location of buildings away from the roadway or other noise sources.

SH-6.4 Older Neighborhood Noise Mitigation

Develop a noise mitigation program for older development where traffic-generated noise has increased significantly and exceed acceptable thresholds.

SH-6.5 City Equipment

Ensure that new equipment and vehicles purchased by the City of Oxnard are equipped with noise reduction technology.

Noise Consideration

Goal SH-7	Consideration of noise levels and impacts in the land use planning and development process
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SH-7.1 Construction Noise Control

Provide best practices guidelines to developers for reducing potential noise impacts on surrounding land uses.

SH-7.2 Limiting Construction Activities

Continue to limit construction activities to the hours of 7 am to 7pm, Monday through Saturday. No construction shall occur after hours, on Sundays, or national holidays without permission from the City.

SH-7.3 Buffering of Sensitive Receptors

Require noise buffering and/or other construction treatments in development located near major streets, highways, the airport, railroad tracks, or other significant noise sources as recommended by a noise analysis.

SH-7.4 New Development Noise Compatibility

Require that proposed development projects not generate more noise than that classified as "satisfactory," on nearby property.

SH-7.5 Land Use Compatibility with Noise

Encourage non-noise sensitive land uses to locate in areas that are permanently committed to noise producing land uses, such as transportation corridors and industrial zone.

SH-7.6 Locating Education Institutions to Avoid Noise Disruption

Locate educational institutions in areas where students and teachers can perform both inside and outside activities without excessive distraction from noise.

SH-7.7 Peak Noise Evaluation

Evaluate peak event noise impacts for proposed development along existing or proposed major transportation routes and Oxnard Airport.

SH-7.8 Noise Contour Maps

Utilize, and periodically update, noise contour maps as a guide to land use decisions.

SH-7.9 Minimize Noise Exposure to Sensitive Receptors

Prohibit the development of new commercial, industrial, or other noise generating land uses adjacent to existing residential uses, and other sensitive

noise receptors such as schools, child and daycare facilities, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA.

SH-7.10 Development Near Oxnard Airport

Prohibit the development of noise-sensitive land uses within the Oxnard Airport 65 dBA CNEL contour.

SH-7.11 Point Mugu NAS Noise Awareness

Ensure the Ormond Beach Specific Plan and other development and use proposals possibly impacted by naval air traffic include acoustical analysis to determine potential impacts from Point Mugu NAS and Air National Guard facilities.

SH-7.12 Exceptions to Noise Standards

Grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners.

SH-7.13 Development Near Railroads

Encourage new habitable structures be setback at least 85 feet from the nearest railroad track. These setback areas shall be measured from the edge of the outermost railroad track.

SH-7.14 Noise Analysis

Continue to require noise analysis of proposed development projects as part of the environmental review process and the require mitigation measures to reduce noise impacts to acceptable levels.

6.8 Hazardous Materials and Uses

Goal SH-8	Minimized risk associated with the transport distribution, use, and storage of hazardous materials
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SH-8.1 Hazardous Waste Minimization Audit Requirements

Maintain and periodically update a hazardous waste minimization audit and hazardous waste minimization program as part of the development review process.

SH-8.2 Handling of Hazardous Materials

Require that hazardous materials are used, stored, transported and disposed of within the City in a safe manner and in compliance with local, state, and federal standards.

SH-8.3 Designated Hazardous Materials Routes

Avoid, whenever possible, the routing of hazardous materials near residential, tourist, and recreational areas.

SH-8.4 Limiting High Risk Land Uses

Actively oppose uses being considered by other agencies that pose an unacceptably high risk to the health, safety, and welfare of the residents, workers and visitors or the natural environment.

SH-8.5 Implementing the Ventura County Hazardous Waste Management Plan

Implement the policies of the Ventura County Hazardous Waste Management Plan as they pertain to the Oxnard Planning Area.

SH-8.6 Attraction/Retention of Clean Industries

Seek to attract clean, non-polluting industries and maintain existing clean industries within the City, in terms of hazardous waste generation.

SH-8.7 Increase Public Awareness

Continue to seek methods to increase public awareness as to the types and proper disposal methods for household hazardous wastes.

SH-8.8 Accidental Spillage at City Facilities

Seek expert advice to prevent accidental oil or other hazardous materials spillage at City-owned facilities.

SH-8.9 Sensitive Land Use Planning

Do not allow residential construction or other sensitive land uses adjacent to any inactive landfill unless a thorough study of emissions from the facility is conducted and it is determined that no adverse health effects or significant odor impacts would occur. Alternatively, a safe buffer zone distance, based on analyses of worst case conditions, could be established around any such site within which no sensitive land uses would be permitted.

SH-8.10 Establishment of Hazardous Waste Facility

Consider establishment of a hazardous waste collection and/or transfer facility to be considered in conjunction with a regional evaluation of waste generation sources.

SH-8.11 Hazardous CUPA Materials Inventory

Continue to require a hazardous materials inventory as part of the Certified Unified Program Agency (CUPA) program.

SH-8.12 Hazardous Materials Studies

Ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.

6.9 Transportation Hazards

Goal SH-9	Acceptable safety and environmental health risks associated with vehicular transit
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SH-9.1 Planning Programs

Continue to support land use, transportation management, infrastructure, and environmental planning programs that reduce vehicle emissions, improve air quality, and minimize risks.

SH-9.2 Reducing Speed on Neighborhood Streets

Ensure that neighborhood streets are designed to discourage excessive speeds and work to reduce speeds by increasing enforcement, education, improving signage, and/or traffic calming measures



SH-9.3 New Roadways and Expanding Existing Streets

Ensure that construction of new roadways and expansion of existing streets mitigate impacts on air quality, noise, historic resources, sensitive biological areas, and other resources.



See also the policies under Chapter 4, Infrastructure and Community Safety

Oxnard Airport Operations

Goal SH-10	Oxnard Airport operations are at an acceptable risk and compatible with surrounding land uses and activities
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SH-10.1 Airport Land Use Compatibility Plans

Require development around the Oxnard and Camarillo Airports to be consistent with the safety policies and land use compatibility guidelines contained within the Ventura County Airport Land Use Plan.

SH-10.2 Compliance with FAA Regulations

Ensure development within the airport approach and departure zones are in compliance with applicable Federal Aviation Administration regulation that address objects affecting navigable airspace.

SH-10.3 Location of New Schools

Encourage new school facilities to be located beyond a two-mile radius of the Oxnard Airport, subject to approval by the California Department of Aeronautics and Department of Education.

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6.2 Key Terms 6-2

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Community Noise Equivalent Level (CNEL)..... 2

Average Sound Level (Ldn)..... 2

Federal Emergency Management Agency (FEMA) 2

Office of Emergency Services (OES) 2

California Code of Regulations (CCR) 2

Beach Erosion Authority for Control Operations and Nourishment (BEACON) 4

Federal Emergency Management Agency (FEMA) 5

Flood Insurance Rate Maps (FIRM) 5

Emergency Operations Center (EOC) 5

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