

Chapter 11
Safety & Noise
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Chapter 11 Safety & Noise



A. Introduction

SAFETY

The residents of Rio Vista rely on the City for many of their safety needs, such as fire protection and crime prevention. They count on the City to plan for, and protect them from, natural hazards such as flooding, earthquakes, and other potentially dangerous situations. The Safety element addresses safety concerns of the community and sets forth the goals and policies essential for their resolution. The Safety element is comprised of the following components:

- *Seismic and Geologic Hazards* includes goals and policies to protect the City's residents from danger associated with active faults, liquefaction, and ground failure (landslides). While the potential for seismic and geologic hazard occurrences in Rio Vista is not high, the soil and geologic characteristics of the City continue to play an important role in determining safety procedures.
- *Flood Control* dictates, in large part, the need for development standards along the Sacramento River and principal drainageways that will provide adequate flood protection to life and property.
- *Natural Gas Wells* discusses the integration of natural gas well operations with future residential development. This element establishes policies and implementing actions that enable natural gas wells to operate while minimizing noise and safety hazards for residents in close proximity to the well sites.
- *Police Services* addresses protection of persons and property within the City by application of the crime prevention unit, department training program, and street patrols. The police department is also one of the first responders to 911 police emergency dispatch calls.

- *Fire Protection* includes goals and policies to prevent and protect against catastrophic fires, and to minimize the loss of life and damage to property and the environment. The fire department is also one of the first responders to 911 fire and medical emergency dispatch calls.
- *Hazardous Materials* addresses the need for the safe and efficient handling of hazardous materials and implementation of programs that will comply with State law.
- *Emergency Services* discusses the extent of emergency medical services available to City residents, and provides policies and programs that will ensure continued effectiveness of this essential service.
- *Health Services* includes the existing status of health services in the City of Rio Vista and provides policies that help to ensure that health service needs are met.
- *Odors* addresses the existence and control of nuisance odors, particularly those due to odorizing of natural gas and agricultural operations. The policies and implementing actions directed at controlling odors will work in conjunction with the actions of private enterprises involved in odor-producing operations.
- *Highway 12* is included as an issue area in this element due to the noise and safety concerns that are present along this principal roadway through the City. The policies and implementing actions that address pedestrian/bicyclist safety along Highway 12 are consistent with those in the Circulation & Mobility element.
- *Rio Vista Airport* reinforces the intent of the Solano County Airport Land Use Commission's *Airport/Land Use Compatibility Plan (ALUP)* (Solano County Airport Land Use Commission, 1988) to ensure protection of the public's health, safety and welfare, particularly noise and safety hazards associated with airport operations. The airport policies contained in this element are consistent with the ALUP and the Circulation & Mobility element of this General Plan.

NOISE

The basic objectives of the Noise element of the General Plan include:

- Ensuring that site design requirements for residential development are adequate to protect residents from sound levels that exceed the specified residential standards.
- Protecting sensitive land uses, such as schools, hospitals, and libraries, from sound levels in excess of residential sound levels.
- Designing streets to reduce, wherever feasible, excessive noise from such roadways.
- Restricting truck traffic in residential areas except for deliveries within the area or on designated truck routes. To the extent possible, truck usage in residential areas should be limited to daylight hours.

- Providing sound protection, to the extent possible, along transportation routes in accordance with the adjacent uses of land.
- Providing sound protection, to the extent possible, from aircraft ingressing and egressing the City airport.

The Noise component of the Safety & Noise element outlines policies and implementing actions to protect Rio Vista residents from excessive noise levels that are annoying to the senses and detrimental to public health. The Noise element addresses the following subjects:

- Transportation and airport noise
- Industrial noise
- Natural gas wells
- Construction noise
- Noise along Highway 12

The element establishes acceptable noise level criteria for land uses affected by either fixed or transportation-related noise sources. Noise and land use compatibility criteria are designed to provide an acceptable community noise environment and to minimize noise-related complaints from residents. The compatibility criteria should be used in conjunction with future noise exposure levels in order to identify projects or activities that may require special treatment to minimize noise exposure.

B. Purpose and Authority

SAFETY

Since 1975, State law has required that a safety element be included as part of all general plans. In 1984, the legislature consolidated the safety and seismic elements into one element that includes seismic safety, geologic hazards, fire safety, and flooding. As with all elements, additional safety issues of particular importance to the community also may be included.

Alquist-Priolo Special Studies Zone Act of 1972. This Act addresses areas identified by the State Geologist as likely to experience earthquakes. The Alquist-Priolo Act focuses on surface fault rupture and not shaking. It addresses earthquake safety in building permits and subdivision procedures by requiring project applicants to submit a registered geologist's report describing potential for onsite surface rupture. Rio Vista is not included within any special study area and, consequently, not subject to these requirements.

Seismic Hazards Mapping Act. This Act provides for a statewide seismic hazard mapping and technical advisory program. This program assists cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes.

Pursuant to this Act, maps and accompanying information are to be made available to local governments for planning and development purposes. The Division of Mines and Geology, in implementing the Act, to the extent possible, is to coordinate its activities with, and use existing information generated from, the earthquake fault zones mapping program, the landslide hazard identification program, and the inundation maps prepared pursuant to Section 8589.5 of the Government Code.

Chapter 6.95 of the California Health and Safety Code. This chapter requires all businesses to report the quantity and locations of hazardous materials to the regulatory authority on an annual basis if the business stores (1) above 55 gallons of a liquid or 500 pounds of a solid hazardous material, (2) above 200 cubic feet of a compressed gas, or (3) a radioactive material that is handled in quantities for which an emergency plan is required. This plan is referred to as the Hazardous Material Business Plan (HMBP) and includes a Consolidated Contingency Plan or Emergency Response Plan. The regulatory authority (the Certified Unified Program Agency) in Solano County is the Solano County Department of Environmental Management. All hazardous materials sites generally are inspected annually by Solano County.

Title 40 of the Code of Federal Regulations. This code, as well as the State Aboveground Petroleum Storage Act, requires facilities or sites that store more than 660 gallons in a single container or 1,320 gallons in aggregate of oil to prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan. The SPCC Plan contains much of the same information as the Contingency Plan described above for hazardous materials but is more detailed in the description of spill response and prevention measures.

NOISE

State Department of Health Services Office of Noise Control. This department establishes the State Guidelines for acceptable noise standards. The agency's Model Community Noise Control Ordinance contains recommended noise standards for cities and counties to use as guidelines in the development of their noise performance standards. Particular attention has been paid to the State's exterior noise limits for rural land uses, which sets a maximum recommended level of 40–50 decibels (dB). (A decibel measurement adjusted to account for the decibel scale used to measure noise.) This recommendation has served as the basis for Rio Vista's proposed adoption of a 45-dBA (a weighted decibel measurement) noise performance standard at the residential property line for those properties in proximity to natural gas well production.

State Office of Planning and Research (OPR) Noise Element Guidelines. In accordance with Government Code Section 65302, the OPR Guidelines require that general plans identify and quantify major noise sources by preparing generalized noise contours for current and projected conditions. Significant noise sources include traffic on major roadways and highways, railroad operations, airports, and representative industrial activities and fixed noise sources.

The Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR Guidelines contain a land use compatibility table that describes the compatibility of different land uses with a range of environmental noise levels in terms of Ldn (a day-night average sound level). A noise environment of 60 dB Ldn or less typically is considered acceptable for residential uses according to those guidelines.

California Administrative Code (California Noise Insulation Standards, Title 25, Chapter 1) This code enforces the State's noise guidelines for single-family attached units, apartments, hotels, and motels but not for single-family detached units. The guidelines recommend a maximum exterior noise level of 60 dBA (community noise equivalent level [CNEL]) for residential uses. If multi-family or single-family attached units are proposed in areas of potential incompatibility or in areas where future noise levels exceed 60 dBA CNEL, they would be subject to Title 25—which requires a detailed noise analysis with recommended noise abatement measures, as required.

California Public Utilities Code. Sections 21670 et seq. of the Public Utilities Code authorizes establishment of an airport land use commission and the formation of a comprehensive airport land use plan that will “protect public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.” The Rio Vista General Plan and specific plans must be consistent with the ALUP, or the governing body of the local jurisdiction must take specific steps to override the commission's recommendations.

C. The Rio Vista Principles: Implementing the Community Vision

The Rio Vista principles that reflect the community's vision in the Safety & Noise element are listed below.

PRESERVE RIO VISTA'S SENSE OF COMMUNITY AND SMALL-TOWN CHARACTER

- *Rio Vista should still be recognizable to today's residents 30 years from now. New development should reinforce the characteristics that make Rio Vista unique. Existing neighborhoods should be examined and strengthened.*
- *Farmland and nature are important elements of the community. A clear edge between urban development and agriculture should be maintained.*
- *The Sacramento River and related natural areas should be showcased and enhanced. These resources should be recognized as vital and essential to the community.*

D. Setting

SAFETY

SEISMIC AND GEOLOGIC HAZARDS

The City of Rio Vista and the planning area are generally located in a seismically active region. Although there has been no historical record of damage to Rio Vista from earthquakes, groundshaking has been reported on several occasions. On May 19, 1889, the Antioch-Collinsville earthquake induced groundshaking in Rio Vista. Similarly, in 1892, an earthquake centered in the Vacaville-Winters area was felt in Rio Vista. This seismic event produced groundshaking at intensity VI on the Modified Mercalli Scale. This level (VI) of groundshaking also was generated in the planning area by an earthquake on August 12, 1906. Earthquakes that shook Contra Costa, Alameda, San Joaquin, and Santa Clara Counties on October 22 and 23, 1916, also were reported in Rio Vista.

REGIONAL FAULTING

The Delta region is subject to seismic risk because of its proximity to the San Andreas Fault system. This fault system includes the San Andreas, Hayward, Calaveras, Rogers Creek, Antioch, Green Valley-Concord, and Greenville Faults. All of these faults have been active historically. There are several faults along the eastern, southern, and western bounds of the Montezuma Hills in which Rio Vista is situated (Herd and Helley, Brown, 1970; Schlocker, 1971; Jennings, 1973). These faults include the Rio Vista, the Midland, and the Antioch. The fault locations are shown in *Figure 11-1*.

The presence of the Rio Vista Fault is inferred on the basis of stratigraphic and physical evidence. The stratigraphic evidence was derived from bore holes drilled by the U.S. Bureau of Reclamation (Gilbert and Associates, 1975). The physical evidence for the fault is a straight, steep 2.5-mile-long scarp in the Montezuma Foundation. Jennings (1973) classified the Rio Vista Fault as one that has undergone Quaternary displacement during the past 2 million years. Although the fault has displayed no movement within the historic past (last 200 years), an earthquake epicenter was located on this fault (Jones and Stokes Associates, 1974). There has been no recent evidence of surface faulting or tectonic creep along the Rio Vista Fault.

The Antioch Fault is located approximately 8 miles southwest of the planning area. This Quaternary fault presently is undergoing right lateral, strike-slip tectonic creep in the vicinity of Antioch (Gilbert and Associates, 1975). Strike-slip tectonic creep denotes slow, constant horizontal movement along a vertical fault. The Antioch Fault has produced numerous earthquakes during historic times; these earthquakes have caused groundshaking in the Rio Vista planning area.

The Midland Fault zone extends north to south, approximately 1 mile west of the planning area. The presence of this fault zone is based almost entirely on subsurface data (Gilbert and Associates, 1975). The Midland Fault zone originally was thought to be the source of the 1892 earthquake; however, data obtained from subsurface investigations indicate that this is probably not the case.

SEISMIC HAZARDS

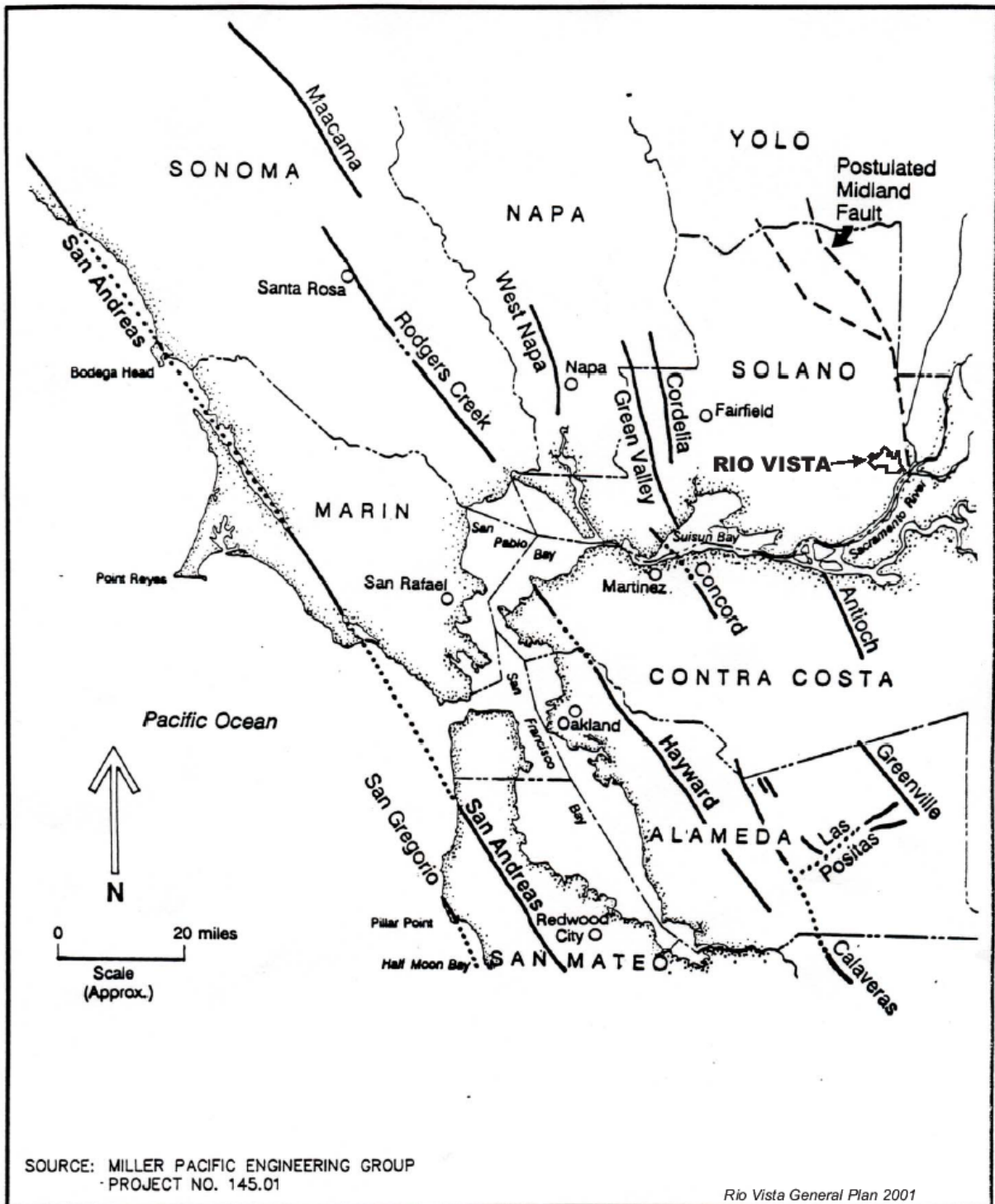
Rio Vista lies near several well-defined and active faults that are capable of producing earthquakes of different magnitudes, all with engineering significance. The Antioch Fault is believed capable of producing a maximum credible earthquake and maximum possible earthquake with Richter magnitudes of 5.75 and 6.5, respectively (Jensen-Van Lienden Associates, 1991). While the Midland Fault also is considered a potentially active fault, the Rio Vista Fault is suspected to be inactive.

SUBSURFACE HAZARDS

The planning area extends through urbanized portions of Rio Vista into agricultural lands and waterways. Electrical power transmission lines and buried natural gas pipelines are located throughout the area, and exploratory wells are continually being drilled throughout the Delta. Rio Vista, as part of the larger Delta region, serves as a significant source of natural gas and underground gas storage areas.

PG&E (Pacific Gas & Electric), Calpine Natural Gas Company, and other independent oil and natural gas companies operate gas transmission lines throughout the planning area. One line is located near the western border of the Montezuma Hills; another line is located approximately 1.5 miles west of Liberty Island Road and roughly parallels the road. These two transmission lines intersect approximately 0.5 mile north of Highway 12.

Figure 11-1
ACTIVE FAULT MAP
NORTH BAY AREA



FLOOD CONTROL

Rio Vista is situated on the west bank of the Sacramento River, which drains the northern half of the Central Valley. No other major bodies of water are located within the planning area. The Federal Emergency Management Agency (FEMA) has mapped the 100-year floodplain for the City of Rio Vista, determining the limits of inundation and depth of flow for floods of a 100-year storm. As shown in *Figure 11-2*, most land in the city limits lies outside the 100-year flood hazard area and is partially protected by levees along the north side of the City (*Note: the Flood Insurance Rate Map is discussed in greater detail later in this section*).

EFFECTS OF FLOODING

Flooding can cause widespread damage to affected areas. Buildings and vehicles can be damaged or destroyed, while smaller objects can be buried in flood-deposited sediments. Floods also can cause drowning or isolation of people and animals. Floodwaters can break utility lines, interrupting services and potentially affecting health and safety, particularly in the case of broken sewer or gas lines.

The secondary effects of flooding are due to standing water, which can result in crop damage, septic tank failure, and water well contamination. Standing water also can damage roads, foundations, and electrical circuits.

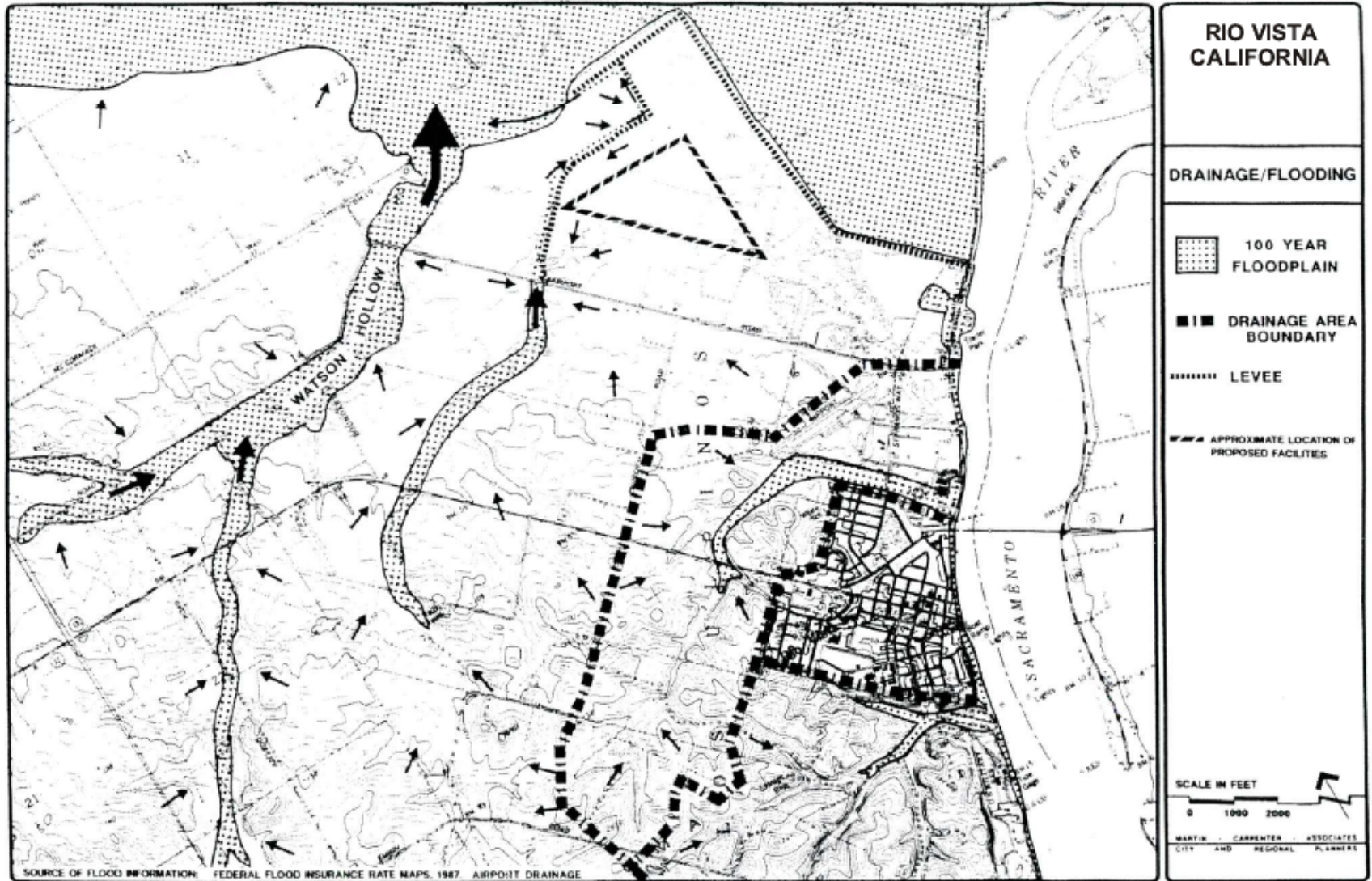
DRAINAGE PATTERNS

Runoff in the Rio Vista planning area collects along intermittent, normally dry stream courses that extend in a northeasterly direction from the Montezuma Hills. In the immediate vicinity of Rio Vista, Industrial Creek provides natural drainage for the northern portion of the City. The City's storm drains collect stormwater runoff from impervious surfaces throughout the City. The storm flows from both natural watercourses and the City's system discharge into the Sacramento River.

HISTORY OF FLOODING

The Sacramento River is the principal watercourse in the planning area. The City of Rio Vista has been subject to flooding along the Sacramento River on numerous occasions in the past. The first recorded incident of flooding in the area occurred in 1862; the floodwaters swept away the town. Subsequently, the town was relocated onto higher ground at the edge of the Montezuma Hills. During the major floods of 1940 and 1942, the river height reached over 16 feet above mean sea level (msl). The construction of major flood control facilities and water diversion projects within the upper Sacramento River basin has since moderated the high river flows and mitigated flooding in Rio Vista. Flood control facilities in the planning area include dikes, levees, and designated floodways. Industrial Creek drains into a floodway that crosses the northern part of the City, providing flood protection for residences in this area.

**Figure 11-2
DRAINAGE PATTERNS, 100-YEAR FLOODPLAIN**



Rio Vista General Plan 2001

FLOOD INSURANCE RATE MAP

The effective Flood Insurance Rate Map (FIRM) for the City of Rio Vista is dated August 4, 1987. On October 9, 1996, FEMA issued a Letter of Map Revision (LOMR) (Case No. 96-09-1067P) for the City. An LOMR issued to the Chief Executive Officer of the community has the effect of revising the FIRM without physically revising and reprinting the affected FIRM panel(s).

The 100-year floodplain boundary, as shown in *Figure 11-2*, indicates the maximum extent of flooding during a storm with a 1 percent probability of occurrence in any given year. A 100-year flood would inundate portions of the riverfront, the floodway between Industrial Creek, and the Los Ulpinos area. Flooding south of the City would occur along Marina Creek and its tributaries. Flooding also occurs north of Rio Vista near Church Road and Highway 12, where agricultural activities have interfered with natural drainage (Solano County, 1979).

For Rio Vista, the “project design floodplain” is approximately 13 feet (U.S. Army Corps of Engineers datum) or 10 feet above msl, fluctuating between 9 and 11 feet (Nolan, 1981). The design flood elevation is equal to or slightly higher than the 100-year floodplain elevation. At this level, water depths would average 4–5 feet within the floodplain zone.

LOCAL FLOODING CONCERNS

Inadequately sized culverts and bridges can impede the passage of high-water flow in local drainageways. Undersized infrastructure typically results in short-term backups behind the culvert or bridge, with pooling water in such areas, creating an unintended detention basin.

The primary area of concern in Rio Vista is the Edgewater Drive neighborhood that fronts on the Sacramento River. Most property owners have constructed retaining walls along the rear of their homes facing the river, alleviating much of the flood concerns there. During heavy rainfall, large volumes of water will backflow from the Delta Marina, just south of Edgewater Drive, requiring sandbags to be placed at the south end of the cul-de-sac on Edgewater Drive.

While the Sacramento River is the primary source of flooding, other areas in the City are subject to flooding due to inadequate drainage during heavy storms. One of these areas is Church Road at Airport Road. This roadway intersection often is flooded during periods of moderate to heavy rainfall, with water overtopping the roadway up to several inches. Much of the problem can be attributed to undersized culverts that are not properly aligned with the drainage ditches; this allows stormwater flows to bottleneck and flood the intersection.

St. Francis Way at Rolling Green Drive is another area of the City that experiences periodic flooding. During heavy rains every 5–10 years, the area along Industrial Creek, which runs between the City Corporation Yard and Egbert Field, accumulates up to 5 inches of stormwater. Presently, there is no corridor wide enough to run drainage pipe with sufficient capacity to carry away the water.

The City has installed flap gates on storm drains along Main Street and Front Street at Logan Street. These flap gates keep the Sacramento River from backing up during high-water periods into the storm drains at City Hall, Dry Vac, and the old corporation yard.

NATURAL GAS WELLS

The natural gas field surrounding Rio Vista is one of the largest and oldest in California. Due to the deregulation of natural gas prices and the new emphasis placed by PG&E on acquiring gas supplies within California, there has been increased activity in Rio Vista. This activity has been further stimulated during this year as a result of energy shortages and the inability of production facilities to meet consumer demand. Natural gas activities in the vicinity of Rio Vista include drilling and construction of new wells, and gas well production and transport. It is not uncommon for a gas well to have a production life of up to 50 years.

POLICE SERVICES

The Rio Vista Police Department presently consists of one police chief, one lieutenant, two sergeants, one detective, seven patrol officers, one administrative assistant, and one community service officer. The police force operates four marked cars and three unmarked cars. Generally, the police force patrols on a 7-day per week, 24-hour per day basis. Police calls are prioritized, and emergency calls are dispatched first. Officers are on patrol for 12-hour shifts from either 6 a.m. to 6 p.m. or from 6 p.m. to 6 a.m. Shifts are designed to be covered so that at least two patrol officers are available during the day and night. Since the jail is located 24 miles away in Fairfield, it is essential that an officer remain available in the City to respond to calls. If Rio Vista police officers are on an emergency call and/or transporting to Fairfield when another call comes in, the department may request mutual aid, per its agreements with the Isleton Police Department, Solano County Sheriff's Department, and California Highway Patrol (CHP). The response time may vary, depending on the agency responding, but emergency calls remain the highest priority.

The Police Department currently is housed at City Hall. With a facility space of 1,200 square feet, the available space is undersized to meet the current needs. The department plans to relocate to a larger facility, as discussed in the "Outlook" section of this chapter.

911 SYSTEM

The Rio Vista Police Department has a contract with Contra Costa County for police dispatching of its 911 calls. If the 911 call is police-related, Contra Costa County dispatch will relay the call directly to the City police. This differs from fire- and medical-related 911 calls that are transferred from the Contra Costa County dispatch to Solano County through a "one-button" transfer service for dispatching. The 911 system has been very reliable throughout the history of the program and has been down only once in the last 7-8 years—the breakdown was caused by a local utility company's temporarily canceling all of its telephone lines in Rio Vista and in the surrounding community. *(Note: Dispatching of 911 calls from cell phones or highway call boxes are received by the CHP and are handled independently of the City's contract with Contra Costa County. The response times to these calls are considerably slower; however, efforts are being made to improve service in this area.)* The City has just obtained a local number to be made available to local residents for 24-hour non-emergency police department calls; these calls are relayed immediately to the Contra Costa County dispatcher.

FIRE PROTECTION

The City of Rio Vista Fire Department provides fire protection services within the City. The Delta Fire Protection District contracts for service with the City for portions of south Sacramento County—the boundaries are Vieira’s Resort to the north, Jackson Slough Road to the east, and south to the Antioch Bridge. The firehouse for both fire departments is located at 350 Main Street in downtown Rio Vista.

The City serves as lead agency for managing the two fire departments. Three paid personnel staff the fire station—one captain, one paramedic/firefighter, and one administrative assistant; part-time paramedics and apparatus operators work 12-hour shifts with varying schedules throughout the week. The department relies largely on volunteers for fire fighting and emergency response. The department also provides Advanced Life Support (ALS) paramedic services from 9 a.m. until 9 p.m. Dispatching for the fire department is provided on a 24-hour per day basis by Solano County Sheriff’s Department (via the Contra Costa County central dispatch).

The Rio Vista Fire Department owns 10 pieces of equipment: one water tender, one rescue squad, one wildland interface Type 2, one 50-foot telesquirt, two 1,250 gallon-per-minute (gpm) engines, two 4x4 power wagon grass units, and two command vehicles. The department also has access to the Office of Emergency Services (OES) through the Delta Fire Protection District.

The Insurance Service Office (ISO), a national rating service sponsored by fire insurance carriers, ranks fire districts’ firefighting capability to reduced structural fire losses on a scale of 1-10, with 1 being the best. The present ISO Insurance rating of the Rio Vista Fire Department is 4. This rating was given in 1993, and many of the deficiencies noted at the time of the last rating have been corrected.

HAZARDOUS MATERIALS

Hazardous materials are defined as those that are a potential threat to human health and that could cause serious illness, injury, or death. Household products, agricultural pesticides, asbestos, and transported hazardous materials (e.g., liquid and gas chemicals) are a few examples of hazardous materials.

HOUSEHOLD PRODUCTS

The most common hazardous materials are those found or used in the home. Waste oil is a common hazardous matter that is often improperly disposed of and can contaminate surface water through runoff. Other household hazardous wastes (paint, pesticides, cleaning products, and other chemicals) are common and often improperly stored in garages and homes. Because of their widespread use in households throughout the community, these products constitute the most common health hazard to Rio Vista residents.

AGRICULTURAL PESTICIDES

In and around the City of Rio Vista are large tracts of agricultural land. Crops commonly are sprayed with pesticides that can contaminate the soils. Potential contaminants include DDT,

lead, and arsenic. In such areas, it is prudent to conduct soils testing, with soil clean-up steps taken if necessary, before allowing intensive development to occur.

ASBESTOS

Asbestos is a crumbly material often found in older buildings that typically is used as insulation in walls and ceilings. Asbestos commonly was used in the past as an insulating material because it had the desirable characteristic of being fire resistant. However, it can pose a health risk when very small particles become airborne. These dust-like particles can easily be inhaled, where their microscopically sharp structures can puncture tiny air sacs in the lungs, resulting in long-term health problems. Many old structures in Rio Vista potentially contain asbestos. Pre-1979 construction often included asbestos and it should be assumed that the demolition of older structures in the City may present this hazard. Proper asbestos abatement and disposal procedures should be undertaken during the demolition of old buildings.

LEAD-BASED PAINT

Paint in many houses and apartments built before 1978 contains lead—it is commonly referred to as lead-based paint. The lead from paint, paint chips, and dust can pose serious health hazards if not taken care of properly. People can breathe or ingest lead through exposure to objects covered with lead dust, contaminated garden soil, or paint chips. Since babies and young children often put their hands and other objects in their mouths, and since children's brains and nervous systems are more sensitive to the damaging effects of lead, this substance is more dangerous to children than to adults.

Lead-based paint that is in good condition is usually not a hazard. Peeling, chipping, chalking, or cracking lead-based paint is a hazard that needs immediate attention. Common areas to check for these conditions are windows and window sills; doors and door frames; stairs, railings, and banisters; and porches and fences. Exposure to lead dust often occurs through improper removal and disposal of lead-based paint in the home—lead dust can form when lead-based paint is dry-scraped, dry-sanded, or heated. Lead in soil also can be a hazard when children play in bare soil or when soil is transported into the house on people's shoes.

The City of Rio Vista's Building Department provides informational brochures to the public in an effort to inform residents about the hazards of lead-based paint and measures that can be taken to help limit or prevent human exposure to lead dust. The City's building inspector is available to advise the public about proper abatement and disposal procedures during the demolition or renovation of old buildings.

INDUSTRIAL PRODUCTS

More than 60,000 chemicals are produced in the United States. Over 11,000 of these chemicals are used for commercial purposes. In the City of Rio Vista, various manufacturing, industrial, and service industries use or store hazardous materials, including pesticides, acids, solvents, caustics, plastics, and heavy metals.

As discussed under "Purpose and Authority," Chapter 6.95, Section 25503 of the California Health and Safety Code, specifies the thresholds that require businesses to report the quantity

and locations of hazardous materials to the regulatory authority on an annual basis. In Rio Vista, businesses are required to submit their HMBPs to the Solano County Department of Environmental Management. A plan must be submitted for each site that stores above the threshold quantities of a hazardous material or any amount of hazardous waste. The HMBP includes an inventory of hazardous materials stored at a facility, with specific physical and chemical descriptions of each material. The HMBP is required to be reviewed annually and updated if there are any material changes that affect the quantity or location of hazardous materials. The HMBP also includes a Consolidated Contingency Plan or Emergency Response Plan, which describes the emergency response procedures to be taken in case of a hazardous material spill or fire. The Plan provides facility identification information, emergency contacts and response procedures to be taken in the event of a hazardous material emergency. Emergency equipment capabilities, emergency services, and employee training also are outlined in the Plan.

TRUCK TRANSPORT OF HAZARDOUS MATERIALS

Trucks traveling through Rio Vista commonly carry a variety of hazardous materials, including gasoline and various crude oil derivatives, and other chemicals known to cause human health problems. When properly contained, these materials present no hazard to the community. In the event of an accident or spill, these materials may be released, either in liquid or gas form. In the case of some chemicals, such as chlorine, highly toxic fumes may be carried through the air a significant distance from the site of their release. Although standard accident and hazardous materials recovery procedures are enforced by the State and adhered to by private transportation companies, the City is at moderate risk because of the volume of truck traffic along the Highway 12 corridor.

ODORS

Three principal sources of odors can, depending on weather conditions, produce an aesthetically adverse effect on the environment in Rio Vista. The first, and perhaps most prevalent, source of odors is the fertilizer spread on grain fields in the Montezuma Hills right at the edge of the City limits—particularly the application of bio solid fertilizers on the marginal soils of the grasslands and rangelands in the agricultural area surrounding Rio Vista. During hot weather and a west wind, the odors travel into the City and can remain in the air for several days. Although this spreading has been in practice for about 7 years, this summer was the first time in about 5 years that the spreading occurred upwind of residential areas in Rio Vista. These bio solids come from waste management plants in the area. They pose no greater hazard than other natural fertilizers such as manure; each is made up of purely organic materials.

The second source of odor is the PG&E odorizer station on Montezuma Hills Road. The station adds mercaptan to the natural gas as an odorizer, which can be detected in the event of a gas leakage. Since natural gas is virtually odorless, the addition of mercaptan is necessary to enable humans to detect the smell of natural gas in the air.

The third source, with the fewest incidents of odors, is the wastewater treatment plant. Except when sludge is being transferred to the Dry Vac unit, the treatment plant is largely odor free. The sludge is cooked under high temperature in the Dry Vac unit, which results in a Class "A" sludge that is virtually odor free.

EMERGENCY SERVICES

There are three tiers of emergency response in Rio Vista. The Rio Vista Fire Department, through an agreement with Solano County Emergency Medical Services (EMS), assumes the first response to all medical emergency calls in the City. At the same time, emergency medical technicians (EMTs) are put on all the fire department's trucks. Through the Joint Powers Authority (JPA) with other cities of Solano County and Solano County Emergency Management Services (EMS), there is an ambulance contract with Medic Ambulance Service. The ambulance contract acknowledges the Delta Fire Protection's responsibility to the Antioch Bridge.

HEALTH SERVICES

Rio Vista's role in health services issues is somewhat limited. The City is not directly involved with the establishment or management of any health care facilities. Nevertheless, Rio Vista is a growing community with an ever-increasing need for health services that is recognized by the City in its planning efforts.

The City's geographic isolation has made it difficult to establish the wide range of medical services needed to serve the community. This is of serious concern to the City, given the special health care needs of children, teens, seniors and low-income households in Rio Vista.

There are no emergency medical clinics in Rio Vista and the City is without assisted living or skilled nursing facilities. Given the substantial increase in the senior population, as a result of the Triloggy development, this absence of senior health care facilities has become increasingly problematic. The lack of prenatal care, mental health services, and a public health clinic also leaves a wide gap in medical services for a large portion of the City's population. This absence of health care facilities and services requires that residents travel long distances to communities such as Fairfield, Antioch, Vallejo, Lodi, and Sacramento to received medical services.

One sole practitioner who has been providing medical care in the City for 40 years may not be able to serve much longer. North Bay Hospital contracts with a doctor's group in Fairfield to provide a doctor's services in Rio Vista. This doctor may not be present in Rio Vista for the long-term either.

A range of health care and social services are presently met by non-profit organizations in the community. As the need continues to increase for services offered by these organizations, they are routinely faced with shortages in facility space, funding or both. The principal non-profit health and social service providers in the community include Rio Vista CARE, Community Action Center (CAC), and Yes to Kids.

RIO VISTA CARE

Rio Vista CARE, with a part-time staff of three (soon to add a fourth), provides drug, alcohol, and family counseling to Rio Vista residents of all income and age groups. At this time, the waiting list for counseling ranges from teens to seniors. During the school year, 80 percent of the agency's clients are school-age children. All four schools have waiting lists for counseling services—three schools in Rio Vista and one in Isleton. The agency receives some referrals through the Rio Vista Police Department Diversion Program. Rio Vista CARE receives its

funding from a variety of local, state, and federal sources. Private donations (e.g., service clubs, businesses, school districts, volunteers) constitute a significant portion of their funding.

COMMUNITY ACTION CENTER

Community Action Center (CAC) provides food, clothing, and emergency shelter to those in need around the City. The center is staffed by an executive director (the only paid staff), a CalWorks receptionist, volunteer teens, and one homeless family. CAC services include a senior brownbag lunch program that serves 35 seniors monthly; the USDA Commodities (food) Program that serves 75 people every month; the Emergency Food Closet that provides food to as many as 60 homeless persons per month. Once every 3 months, individuals receive 1 week's supply of food. In addition, the CAC provides resource information, homeless emergency shelters, and its Season of Caring Program (rental assistance).

YES TO KIDS

The *Yes To Kids* before- and after-school program currently operates under a joint agreement between the River Delta Unified School District and Rio Vista CARE. This program is modeled after similar successful programs in the Solano County communities of Fairfield and Vacaville. *Yes To Kids* provides a safe before- and after-school environment for children to do homework, and have social interaction. Funding for this program is limited and, since the need is continuing to increase, program operators are continually looking for additional means of funding for program expansion.

HIGHWAY 12

State Route 12 (commonly referred to as Highway 12) is a high-speed, two-lane roadway that bisects Rio Vista, running in an east-west direction through the City. Local traffic and regional traffic on this route has increased as development in Rio Vista and surrounding communities (Solano County and Sacramento County) has increased. The present safety concern with Highway 12 is the safe crossing of bicyclists and pedestrians, which is addressed in the "Outlook" section of this chapter.

RIO VISTA AIRPORT

Since the 1950s, Rio Vista has had a municipal airport. The former airport was relocated to a new facility that opened in 1992. New infrastructure and building sites for businesses recently have been added; therefore, the facility is both a public asset and an economic development opportunity, although it has not yet achieved fiscal self-sufficiency.

The Rio Vista Airport is located north of Airport Road and west of Church Road. The facility has a helipad and two runways, one 4,200 feet and the other 2,200 feet. The 10-year-old facility recently was upgraded with water, sewer, and additional utility improvements; an improved 12-acre business park; and a new office/administration building. Several "fixed base operators" (FBOs) are located onsite, including a mechanic. The City operates a fuel concession at the site, as well as hangars of various sizes for rent. Approximately 50 aircraft are located at the site. A private company not related to airport operations recently occupied the new office

building and one hangar building. The business park can accommodate up to 100,000 square feet of building development sites or “pads.” The future Fire Station No. 2 will be located here.

NOISE

In the Rio Vista community, noise is generated by a variety of transportation-related noise sources as well as fixed sources. Transportation-related sources include Highway 12 traffic, with a substantial amount of truck traffic, and aircraft activity at the Rio Vista Airport. Office and commercial uses, industry, agriculture, recreational and public facilities, along with gas well compressors, are routinely occurring fixed sources of noise in and around the City; temporary fixed sources include construction and natural gas well drilling.

Stationary noise sources that may be ongoing over a 24-hour period, such as natural gas pipeline compression, can be measured by standards based on 24-hour weighting. These standards may not be adequate, however, to address other noise sources, particularly industrial noise sources, which occur infrequently but at a potentially higher intensity.

Rio Vista’s exterior noise standards for new uses affected by all stationary (non-transportation) noise sources under the General Plan update range from 45 to 65 dBA Ldn. This range provides for cases in which a higher standard is needed (e.g., continual generation of ‘white noise’ from natural gas pipeline compression; and infrequent but relatively high intensity noise). *Table 11-3* contains the noise standards for new uses affected by stationary noise sources.

The noise standards used for the General Plan closely follow recommendations made by the State Department of Health Services’ Office of Noise Control. These noise compatibility standards are shown in *Table 11-1*.

The existing noise exposure contours are taken from those adopted by the City in the 1990 Amendments to the 1985 General Plan (Rio Vista, 1991). Since the 65-dBA contour is shown as an estimated range falling within 100-200 feet from the centerline of Highway 12, and because local topography, vegetation, or intervening structures may significantly affect noise exposure at a particular location, the noise contours should not be considered exact.

NOISE & SOUND MEASUREMENT

Sound levels are frequently expressed in units called decibels (dB). When this measure of sound intensity is adjusted correct for the relative frequency response of the human ear, the resulting unit is the “A-weighted” decibel (dBA). A-weighting de-emphasizes low frequencies to better correlate with the response of the human ear to sound (i.e., the human ear is more sensitive to high frequencies). The zero on the dBA scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. The dBA scale is a logarithmic rather than a linear measure of sound intensity; consequently, a 10-dBA sound level increase denotes a factor of 10 higher in intensity, while a 20-dBA increase denotes a factor of 100. A 1-2 dBA change in ambient noise levels is generally not audible even to sensitive receptors. The decibel system of measuring sound provides a simplified relationship between the physical intensity of sound and its perceived loudness to the human ear.

The physiological effects include sleep intrusion, vasoconstriction (constriction of veins), and loss of hearing. Sleep intrusion occurs either when noise causes a person to awaken or when noise causes changes in the depth of sleep. The levels of noise that cause sleep intrusion and the actual harm produced have not been determined. Vasoconstriction occurs for sound levels over 70 dB; the degree of constriction is proportional to the number of decibels by which the level exceeds 70. Vasoconstriction presently is considered only potentially dangerous.

Table 11-1a

Exterior Noise Limits

(Levels Not To Be Exceeded By More Than 30 Minutes In Any Hour)

Receiving Land Use Category	Time Period	Noise Level (dBA)		
		Noise Zone Classification (1)		
		Rural Suburban	Suburban	Urban
One & Two Family Residential	10pm - 7am	40	45	50
	7am - 10pm	50	55	60
Multiple Dwelling Residential Public Space	10pm - 7am	45	50	55
	7am - 10pm	50	55	60
Limited Commercial Some Multiple Dwellings	10pm - 7am	55		
	7am - 10pm	60		
Commercial	10pm - 7am	60		
	7am - 10pm	65		
Light Industrial Heavy Industrial	10pm - 7am	70		
	7am - 10pm	75		

(1) The Classification of different areas of the community in terms of environmental noise zones shall be determined by the Noise Control Office(r), based upon assessment of community noise survey data. Additional area classifications should be used as appropriate to reflect both lower and higher existing ambient levels than those shown. Industrial noise limits are intended primarily for use at the boundary of industrial zones rather than for noise reduction within the zone.

Source:
Model Community Noise Ordinance
Office of Noise Control
California Department of Health
April 1977

**Table 11-1
Noise Compatibility Standards**

Land Use Category	Community Exposure to Ldn or CNEL, dBA					
	55	60	65	70	75	80
Residential: Low-Density Single Family, Duplex, Mobile Homes	[Normally Acceptable]			[Normally Unacceptable]		
Residential: Multiple Family	[Normally Acceptable]			[Normally Unacceptable]		
Transient Lodging: Motels, Hotels	[Normally Acceptable]			[Normally Unacceptable]		
Schools, Libraries, Churches, Hospitals, Nursing Homes	[Normally Acceptable]			[Normally Unacceptable]		
Auditoriums, Concert Halls, Amphitheaters	[Normally Acceptable]			[Normally Unacceptable]		
Sports Arena, Outdoor Spectator Sports	[Normally Acceptable]			[Clearly Unacceptable]		
Playgrounds, Neighborhood Parks	[Normally Acceptable]			[Normally Unacceptable]		
Golf Courses, Riding Stables, Water Recreation, Cemeteries	[Normally Acceptable]			[Normally Unacceptable]		
Office Buildings, Business Commercial and Professional	[Normally Acceptable]			[Normally Unacceptable]		
Industrial, Manufacturing, Utilities, Agriculture	[Normally Acceptable]			[Normally Unacceptable]		

INTERPRETATION



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken

Source:
California Department of Health and Safety
Office of Noise Control
2001

Rio Vista General Plan 2001

Noise affects people psychologically as well as physiologically. The psychological effects depend on the individual and the characteristics of the sound other than its intensity. People who work in a high occupational noise climate may be less sensitive to community noise intrusion. Also, continuous noise has been found to be less annoying than intermittent noise.

The time of day when a sound is emitted is an important factor in determining whether or not it is considered a nuisance. Sounds that may be barely noticeable at midday may be seriously disruptive in the middle of the night. A number of measurement scales that attempt to account for this time factor have been developed. Two of the more commonly used scales of this type are the Community Noise Equivalent Level (CNEL) and the day-night sound level Ldn. The U.S. Environmental Protection Agency developed the Ldn measure, a 24-hour average sound level in which a 10-dBA penalty is added to any sounds occurring between the hours of 10:00 p.m. and 7:00 a.m. The CNEL scale, which is used in California Airport Noise Regulations, is similar except that an additional 5-dBA penalty is added for the evening hours between 7:00 p.m. and 10:00 p.m.

MOBILE AND STATIONARY NOISE SOURCES

As mentioned earlier in this chapter, noise in Rio Vista is generated by a variety of noise sources. These noise sources can be either mobile whereby the source does not remain in one location (e.g., motor vehicles and aircraft), or they can be stationary (e.g., industrial and recreational facilities).

Noise from any of these sources can be an irritant to individuals close to the source. Factors such as climatic conditions, time of day, and ambient noise often influence the degree to which noise-sensitive uses, such as residences and schools, are affected. The principal sources of noise in Rio Vista include:

- Highway 12
- Rio Vista Airport
- Natural gas pipeline compression

HIGHWAY 12

Local and regional traffic on Highway 12 is considered a principal source of noise that may affect sensitive noise receptors to a greater or lesser extent, depending upon the time of day. This mobile noise source generates a 65-dBA contour of approximately 100–200 feet from the centerline of the roadway according to the Solano County General Plan Noise Contour estimates, as adopted in the *1990 Amendments to the 1985 Rio Vista General Plan* (Rio Vista, 1991). The existing estimated 65-dBA noise contour is shown in *Figure 11-3*. This contour range represents the area in which an average 65-dBA noise level is reached during a normal 24-hour day. The range has not been adjusted to account for the greater intrusiveness of evening and nighttime noise.

The *1985 Rio Vista General Plan* (Rio Vista, 1977) identified the following measure to reduce or attenuate noise impacts associated with Highway 12:

- Development shall be set back from Highway 12 an adequate distance to comply with noise standards, or these distances can be reduced if noise attenuation devices such as sound walls are proposed.
- Development projects shall be reviewed based on criteria shown in the City's Noise Ordinance and shall comply with State and City standards.

RIO VISTA AIRPORT

Rio Vista Airport can be considered both a mobile and stationary source of noise since it operates as both a base for aircraft takeoffs and landings, as well as an industrial park. Noise generated from industrial uses of the site is not significant at this time, however. The principal source of noise affecting sensitive receptors is associated with aircraft operations.

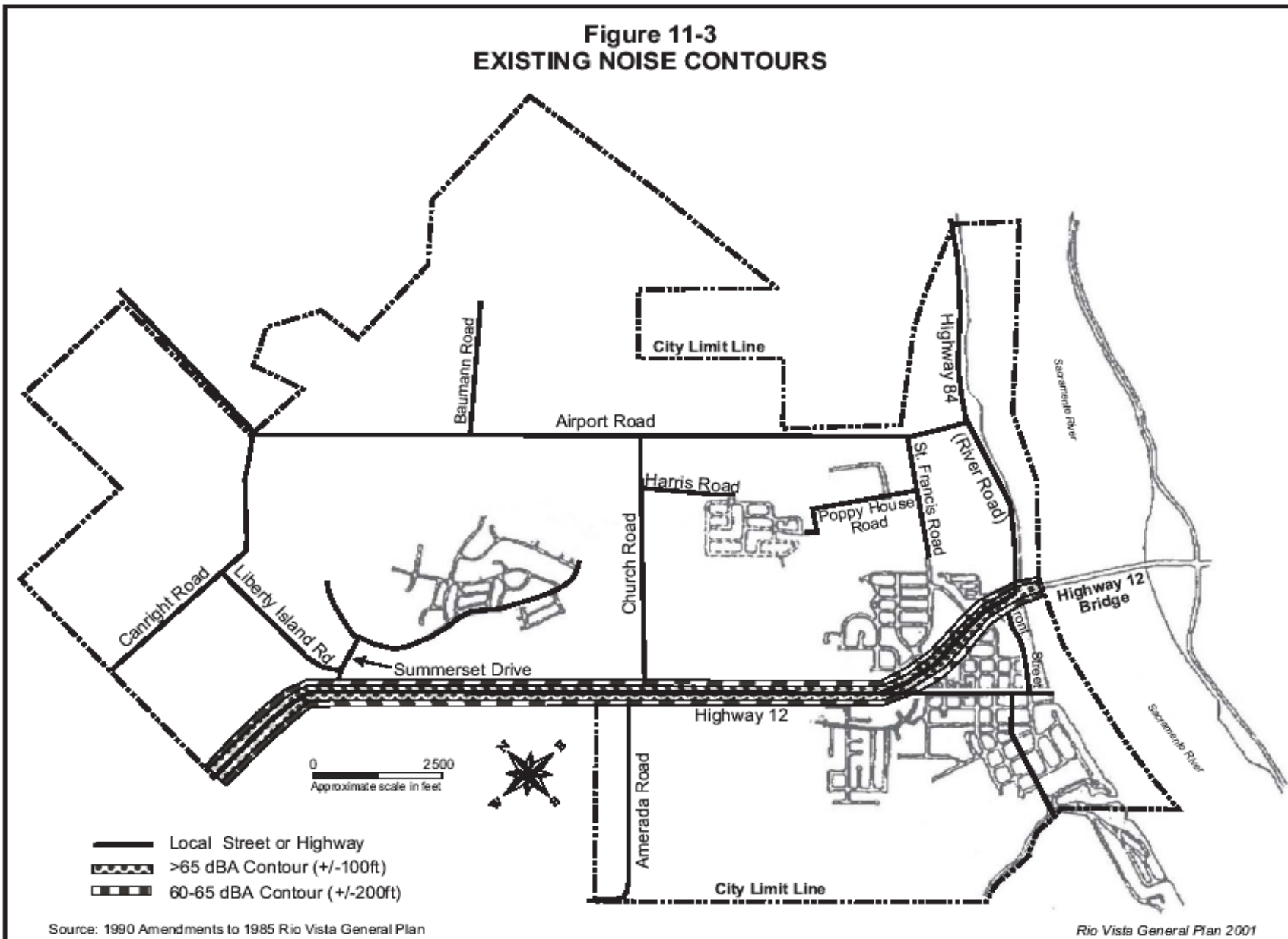
Aircraft noise affecting the City is produced by operations occurring at the Rio Vista Municipal Airport. The greatest potential for sound intrusion occurs when aircraft land, take off, or run up their engines while on the ground. The sounds associated with general aviation propeller aircraft are produced primarily by the propellers and secondarily from the engine and exhaust.

The most recent noise contours for the Rio Vista Airport were prepared as part of the ALUP (Solano County Airport Land Use Commission, 1988). The most expansive of these noise contours was one projected for ultimate buildout, which assumed a 3,060-foot runway and a fleet activity mix of single-engine (74.9 percent), agricultural (15.0 percent), twin-engine (10.0 percent), and business jets (0.1 percent). The average daily volume was projected to be 329 flights. The ALUP's 2004 noise contours are illustrated in *Figure 11-4*. These contours represent an average of all noise levels expected during a normal 24-hour day, adjusted to an equivalent level that accounts for the greater intrusiveness of evening and nighttime noise. The adjusted noise level is referred to as a "community noise equivalent level" (CNEL).

The ALUP contains the following policy language regulating future land uses within this area to ensure that they are compatible with future noise levels:

- The evaluation of airport/land use noise compatibility shall consider the future CNEL contours of the airport.
- Because of the inherent imprecision in the calculation of noise contours, it is not intended that the depicted locations be absolute determinants of the compatibility or incompatibility of a given land use.
- The maximum CNEL which shall be considered normally acceptable for residential areas in the vicinity of the Rio Vista Airport is 60 dBA.
- The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise.

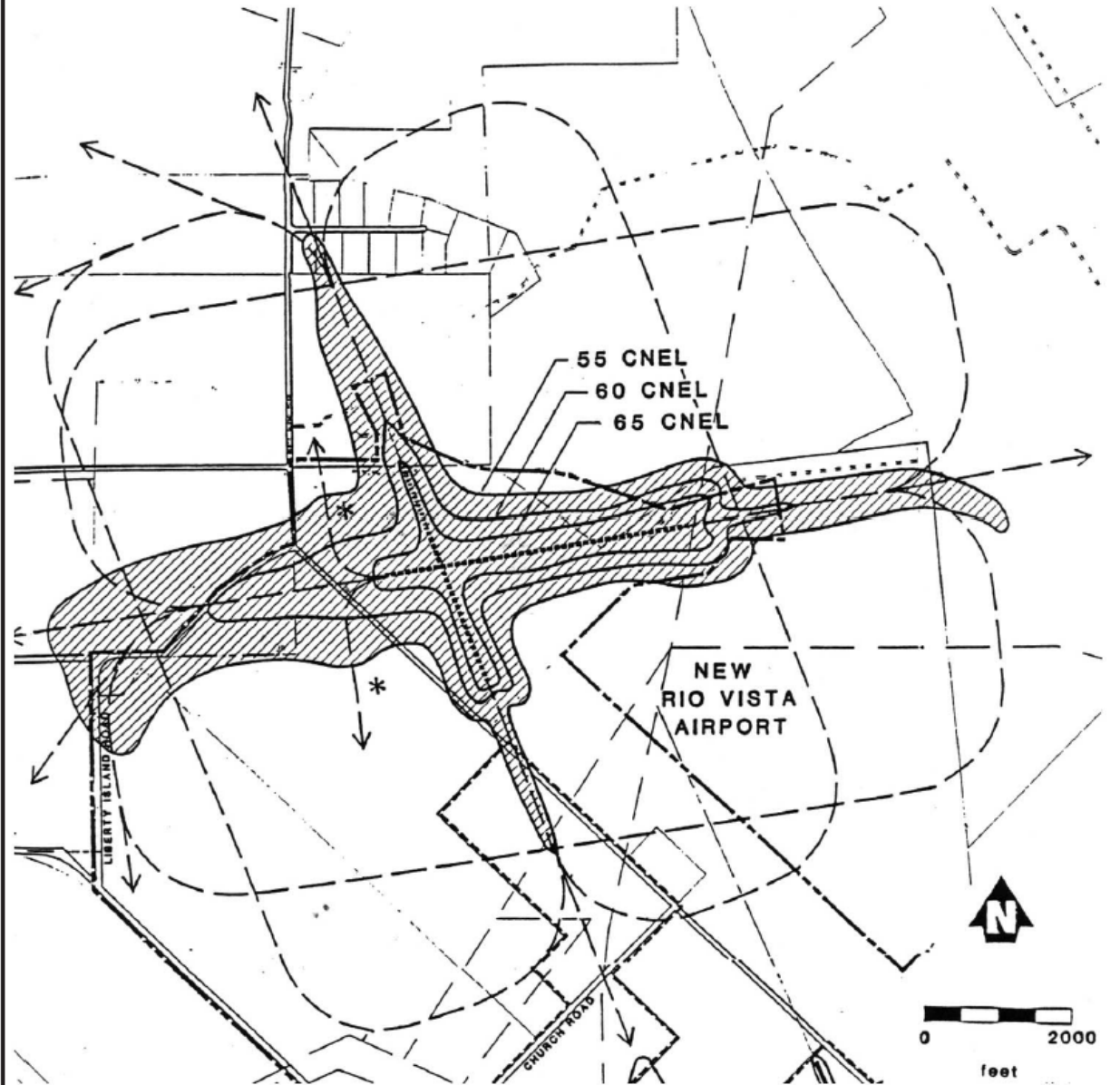
**Figure 11-3
EXISTING NOISE CONTOURS**



Source: 1990 Amendments to 1985 Rio Vista General Plan

Rio Vista General Plan 2001

**Figure 11-4
AIRPORT NOISE CONTOURS**



Source:
Contour locations
calculated by
Hodges & Shutt
(1987)

* Agricultural Aircraft

Rio Vista Municipal Airport
Noise Impact (2004)

Rio Vista General Plan 2001

- Single-event noise levels shall also be considered in the evaluation of airport/land use noise compatibility. This is particularly important in areas which are often overflown by noisy aircraft but which do not have high CNELs (e.g., because prevailing winds cause most aircraft departures to go in a different direction). The primary concern would be the location of residential and other noise-sensitive uses under the straight-in approach/departure flight tracks. (Solano County Airport Land Use Commission, 1988.)

In developing land uses in the planning area that fall within the airport compatibility zones, a number of developer-proposed land uses have been modified to reflect compatibility zones and associated densities. Development projects are reviewed based on the current criteria shown in the ALUP and must comply with Federal Aviation Authority and City standards.

NATURAL GAS WELLS

Natural gas wells may be considered a stationary noise source, although most noise associated with natural gas production is below the performance thresholds established by the City, or it is of short duration (e.g., well-drilling and extraction). Gas well compressors, which constitute the principal source of noise associated with natural gas production, are largely localized in their noise generation. The sound of natural gas pipeline compression produces a type of “white noise” effect in the surrounding area. Within Rio Vista, there are several operating compressors and pipelines—one is owned and operated by Calpine Natural Gas California, Inc.; another gas well/compressor station, located behind Rio Vista High School, is owned by PG&E; other gas well owners in Rio Vista that may operate using compressors include Castle Minerals, ANA Production, and others.

The City’s Hydrocarbons Ordinance (Ordinance No. 476 of the Rio Vista Municipal Code) was established to provide for “the economic recovery of natural gas in a manner compatible with surrounding land uses and protection of the public health and safety.” This ordinance provides performance standards to supplement those found in Section 513 of the Zoning Ordinance (Noise Ordinance) as mitigation for noise generated from natural gas pipeline compression.

Although compressors may not be installed at the time the well begins production, with a single well producing for a period of up to 50 years, gas well operations may require pipeline compression at some point during the production life of the well. Therefore, noise mitigation may not be required on gas well sites until such time as a compressor is required.

The large compressor station owned by PG&E referred to above, is a central station that takes gas from the feeder lines owned by the gas extraction operators and passes it into PG&E’s main distribution lines. This facility, located in a large structure, currently generates noise from a large cooling fan that ventilates the facility, rather than the compressor itself. This facility has been the subject of noise mitigation requirements for the Vineyard Bluffs subdivision, through the CEQA document for that project (mitigated negative declaration). PG&E officials do not expect the facility to remain in operation for the long term, although there is no certain date (or commitment) for the facility to cease operation.

CURRENT NOISE PERFORMANCE STANDARDS

The City generally has followed the State standards in the establishment of acceptable noise levels for development. Both Section 513 of the Zoning Ordinance and the Hydrocarbons Ordinance require mufflers or “cloaking” of equipment if noise emitted exceeds 60 dB. The Zoning Ordinance noise section also requires “cloaking” if noise in “non-industrial” areas exceeds 50 dB at 200 feet from the source.

The Hydrocarbons Ordinance states that “Gas operations shall be governed solely by and be required to meet the noise standards of Section 513.B.1 of the Zoning Ordinance, provided, however, compressors operated by internal combustion engines shall have muffler systems installed if the sound from the compressor measures 60 dBA or more immediately outside any non-industrial building used for human occupancy located at a distance of 150 feet or more from the compressor. ”

Airport standards usually require special insulation or noise reduction measures in residences to reduce interior noise to 30-35 dB. The ALUP includes noise contours with supporting policies and land use compatibility criteria to provide guidance in development projects. According to the ALUP, the maximum CNEL normally considered acceptable for residential areas in the vicinity of the Rio Vista Airport is 60 dBA.

E. Outlook

SAFETY

Existing and proposed General Plan policies and ordinances reflect the City's ongoing obligation to protect lives and property. In addition, the City is committed to working closely with Solano County and other emergency service providers in a periodic update of plans for emergency events. Implementation of these policies and enforcement of supporting City ordinances will ensure that efforts are maximized in protecting the citizens of Rio Vista from potential geologic and seismic safety hazards, flooding, and other natural disasters.

SEISMIC AND GEOLOGIC HAZARDS

Since Rio Vista is located in the vicinity of active earthquake faults, the City's ability to respond to a seismic event is crucial to the health, safety, and welfare of its citizens. The General Plan process has included a reexamination of the City's emergency response policies and the drafting of its *Comprehensive Emergency Management Plan* (Rio Vista, 2001) to reinforce the state of the City's preparedness in responding to seismic and other emergency situations.

FLOOD CONTROL

Future planned development will significantly increase the amount of impervious surface and decrease natural vegetation. These conditions limit water infiltration opportunities and, without adequate mitigation, can increase stormwater runoff and decrease the time required to reach peak discharge rates. The City is committed to minimizing damage due to flood hazards through identifying floodplain boundaries and limiting development in areas where flooding is likely to occur.

NATURAL GAS WELLS

Natural gas production will continue to play an important role in the local economy. The City will establish that developers and gas companies have adequate safeguards and emergency response plans in place prior to development in the vicinity of gas well operations. Although the City's monitoring capabilities are limited, the assurances that safeguards and reporting are carried out will occur largely through the City's development review process and through the update and enforcement of the City's Hydrocarbon Ordinance.

POLICE SERVICES

This element's policies and implementing actions reflect the importance of public safety in maintaining Rio Vista's small town character. Without adequate staffing, and facilities and equipment with the latest technology, the City will lose its ability to provide a safe and secure environment for its citizens. With this in mind, the City has assessed its current level of service and projected what will be needed in the near-term and during the General Plan planning period to meet the needs of the community.

The City presently is preparing to temporarily relocate its Police Department facility to the Rio Vista Business Park. The facilities will increase in square footage from 1,200 to 7,200 square feet—this space is needed to accommodate existing staff and equipment. It is expected that these facilities will meet the Department’s needs for approximately 5-7 years, when the population growth in the City is anticipated to necessitate further facilities expansion.

Long-term plans for Rio Vista include construction of a Civic Center that will provide for the additional expansion of the Police Department’s facilities. No location has been determined for the City offices.

Staffing will be increased relative to the needs of the community. Population increase will be the principal factor in determining the extent to which the staff will need to be increased. Development patterns could be another factor in determining the need for staffing. The intent of the City to keep growth compact rather than “leapfrogging” will positively contribute to the efficiency of the department in its ability to maintain a continual presence in neighborhoods. The City intends to maintain the existing high level of response as it prioritizes its emergency calls. It is not anticipated that a police substation will be needed during the next 10 years—the ability of the police to maintain a regular presence in all of the City’s neighborhoods will be accomplished through its central facility. At such time that the population increases to more than 20,000 residents, the City will need to reassess its facilities in order to determine whether a second facility is necessary.

The City intends to make use of the newest available technology in order to best serve its residents. Staying current will require a year-to-year assessment of what equipment is available. The City will seek grants to supplement local funds for purchase of this equipment through the State Office of Traffic Safety and the Office of Criminal Justice Planning.

911SYSTEM

The City expects to continue its contract with Contra Costa County for dispatching services in the near to midterm future. When the population starts to approach buildout at 20,000 residents, the City may choose to explore the possibility of having its own dispatch for police and fire. The current trend is to consolidate even further than what presently exists among the police departments in Solano County—regionalizing dispatch services in an effort to gain significant cost savings is the primary reason for this move. Preliminary talks have begun among Solano County and the cities to consolidate dispatch centers down to two or three in the County service area. The trade-off is that further regionalizing of the dispatch system reduces familiarity with the affected area and has the potential to increase response time.

FIRE PROTECTION

Buildout of Rio Vista, as proposed in the General Plan (i.e., Trilogy, Esperson, River Walk, Marks, Gibbs, and Brann Ranches), will require the construction of at least one additional fire substation and the purchase of additional equipment. In response to the General Plan buildout scenario, the City may require the dedication of one or two lots in new development areas for construction of a firehouse. One additional pumper would be located at the new station; nine new paid personnel would be needed to staff the proposed station(s). The City will seek to recruit new volunteers who either live or work in the City or surrounding area.

The future targeted ISO rating is 3. The future targeted response time as the new areas are developed is 4 minutes (90 percent of the time).

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

The City has prepared and will soon adopt its draft *Comprehensive Emergency Management Plan* (Rio Vista, 2001) in accordance with the requirements of Solano County's Emergency Response and Planning Program, and the Standardized Emergency Management System (SEMS) Operations Area Response. The plan defines the primary and support roles of City agencies and departments in after-incident damage assessment and reporting requirements. This plan will serve as a key component in implementing the City's policies that address emergency response.

HAZARDOUS MATERIALS

Many of the potential risks associated with hazardous materials can be reduced through the City's provision of educational materials and staff recommendations through the City's Building Department. Education in the handling and disposal of household products, asbestos, and lead-based paints will be an ongoing effort to ensure the safety of Rio Vista residents.

Local, state and federal regulations will largely be relied upon for ensuring that reporting requirements are met and business plans are prepared by those businesses operations that involve the transport, handling and storage of hazardous materials. The City will help to ensure compliance with these regulations to the greatest extent possible in the course of its normal permit and inspection processes.

The Truck Route Map in the Circulation & Mobility element will provide transporters of hazardous materials with acceptable routes through the City. The map will be used as a reference in the event of questions regarding safe transport.

ODORS

In winter, after the fertilizing season is over in the area, Solano County plans to implement an appeals process for addressing concerns over bio solid fertilizers. Currently, a proposal must be filed with the County to spread bio solid fertilizers on agricultural fields. In the future, the City of Rio Vista will be made aware of proposals for spreading bio solids upwind of Rio Vista and in the surrounding area. An appeals process will be established through the County's Administrative Director of Environmental Management. If either party is not satisfied with the outcome, a further appeal may be made to the Solano County Board of Supervisors.

The City recognizes that it cannot expect to halt the spreading of bio solids as it continues its policies of supporting agriculture on the lands surrounding Rio Vista. However, the City will continue to monitor sources of odors that can affect the quality of life in the City and advise its citizens of their options in addressing these odors. The success of monitoring and informing the public will depend on the extent of public/private cooperation and interagency coordination.

EMERGENCY SERVICES

The City will continue to operate under the terms of its contract with Solano County. Rio Vista Fire Department will continue its public/private partnership with Medic Ambulance Service and agree to be “first responders” on emergency calls, staffing all of its fire trucks with emergency medical technicians (EMTs). Unless State legislation changes in the future, the City will be prohibited from providing its own ambulance services.

HEALTH SERVICES

The City will encourage and work with health care providers to increase the availability of health care services in Rio Vista. It is the intent of the City to minimize the extent to which residents have to travel long distances to receive basic care. Medical clinics, emergency medical care, and assisted living and skilled nursing facilities are just a few of the health care services that the City will seek to establish in the community.

The lack of adequate public transportation will create the need for facilities to serve residents in areas geographically removed from the Downtown core. The City envisions the construction and operation of a social services and health care facility in the vicinity of Airport and Church Roads. This strategic location will facilitate access by residents in the north and west areas of the City to convenient health care services.

Although Rio Vista CARE moved its offices recently to a larger space, their services are constrained by insufficiently sized facilities. While the demand is expected to remain high, the agency will not be able to significantly expand its services without adequate space. As soon as a substantially larger building becomes available for staff, it is expected that Solano County will have a greater presence in Rio Vista with a staff of therapists and eligibility workers. The City will work with Rio Vista CARE, if needed, to obtain grant funding for construction of new community facilities.

The Community Action Center (CAC) would like to expand its services to include teen pregnancy counseling, a teen work program, and drug and birth control information. Other needs that the center cannot currently address include emergency shelter, transitional housing, affordable housing, and affordable childcare. Additional funding will be needed before the center’s staff and facilities can be increased.

Before- and after-school childcare is another of the community needs that will continue to increase as the community grows. The City will work with local service providers and the River Delta Unified School District to help ensure that before- and after-school care will be available to all children in need of this service.

HIGHWAY 12

Providing a means of safely crossing Highway 12 for bicyclists and pedestrians is of primary concern to the City. As traffic continues to increase on this principal roadway through Rio Vista, improvements will be required to increase the ease of access between the north and south sides of the City. The Circulation Map in the Circulation & Mobility element indicates an approximate location for a highway undercrossing or overcrossing to be constructed. The

policies and implementing actions in that element are consistent with the intent of this Safety & Noise element to increase safety in this area.

RIO VISTA AIRPORT

Expansion and development at the Rio Vista Airport are expected to continue without placing increased risk to the public or those working on the site. Continuation of existing standards for analysis of new developments, adoption and periodic update of the City's *Comprehensive Emergency Management Plan*, and prohibition of residential construction within the restricted zones will minimize the danger of potential hazards. The airport/land use safety compatibility criteria contained in the ALUP will be used in assessing risks associated with the operation of aircraft to and from the airport in order to minimize risk to people on the ground and in the aircraft, largely through reducing density and maximizing the amount of open land within the vicinity of the airport. The City will continue to implement the ALUP and consider the Plan's safety criteria during its review of proposed land use plans and development projects in the vicinity of the Rio Vista Airport.

NOISE

MOBILE AND STATIONARY NOISE SOURCES

Future noise levels in the community are based on an anticipated increase of traffic and airport operations, as well as industrial noise or nuisance noise that may result from land development in the community. Traffic increases may be predicted based on cumulative buildout of the City. The Circulation & Mobility element discusses the anticipated increase in traffic as a result of plan buildout. Future industrial-related noise is more difficult to predict because not all industrial uses produce significant noise. In some cases, non-industrial uses could produce nuisance noise that could affect nearby noise-sensitive uses—typically, residential uses. The likely noise levels that will be expected from each noise source are discussed below.

HIGHWAY 12

Continued land development in Rio Vista and the surrounding area will result in traffic increases in Rio Vista. Such increases will result in increased noise levels, affecting residents living close to heavily traveled roadways. Highway 12 would continue to be by far the greatest contributor to overall roadway noise in the community. However, much of this increase may be attributed to future development outside the community, especially in Solano County and Stockton.

Assuming no new barrier for noise attenuation, areas within a range of 260–400 feet measured from the centerline of Highway 12 could potentially be subjected to noise levels in excess of 60–65 dBA Ldn, which is the City’s proposed noise standard without mitigation as shown in the *1990 General Plan Amendments to the 1985 Rio Vista General Plan* (Rio Vista, 1991). *Figure 11-5* shows the estimated noise level contours along Highway 12, based on projected buildout under the Land Use element. The 60–65 dBA contour is shown as an estimated 400 feet from the centerline of Highway 12. Because local topography, vegetation, or intervening structures may significantly affect noise exposure at a particular location, the noise contours should not be considered exact. Residential projects that are proposed within this distance of Highway 12 will require a noise study to determine the actual distance of the project from the 60-dBA contour.

The Solano Transportation Authority (STA) traffic model indicates that around 2010 (the halfway point in the projected buildout of this General Plan) portions of Highway 12 will need to be expanded to four lanes in order to maintain the level of service (LOS) standards set in the Circulation & Mobility element. By full buildout, in 2020 or beyond, all of Highway 12 will need to be expanded to four lanes. A community-wide noise study of major arterials would be helpful in assessing noise levels once traffic levels have been determined under the buildout scenario.

RIO VISTA AIRPORT

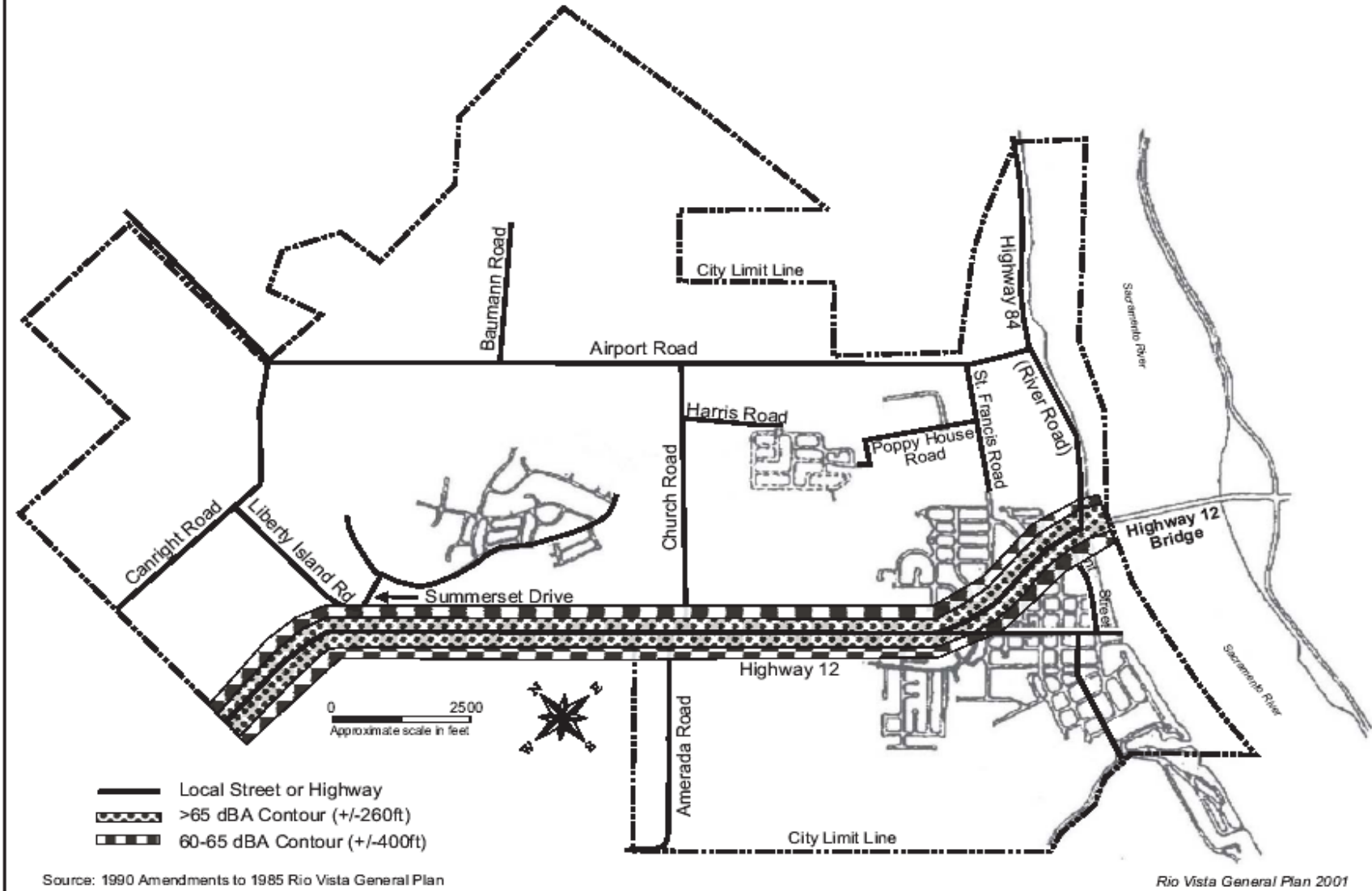
Airport noise is expected to increase as the use of the airport increases. Future noise contours (2004) for the airport have been developed as part of the ALUP. As shown in *Figure 11-4*, the contours will be used to evaluate development projects onsite and in the vicinity of the Rio Vista Airport. If airport activity increases substantially above that anticipated in the ALUP, a follow-up noise study would be needed to update the noise contours.

NATURAL GAS WELLS

Natural gas wells will continue to dot the landscape of Rio Vista and, as development continues as planned, will become an integral part of residential communities in the southern and western portions of Rio Vista. Natural gas pipeline compression associated with gas wells has the potential to create noise impacts near residential development. The noise concern over gas well compressors under this General Plan update is that substantial new residential development will be constructed in the south area of Rio Vista (Esperson property) close to these compressors.

The City will apply noise performance standards to ensure that the noise generated from natural gas pipeline compressors is not intrusive for residents living near these sites (*see discussion below*). Adopting the recommendations of the State’s Model Noise Control Ordinance for rural residential areas, the City will adopt a noise standard of not greater than 45 dBA at the residential property line. This higher-than-usual standard for outdoor noise accounts for the continual generation of “white noise” resulting from the compression in natural gas pipelines. This standard are directed toward well-head compressors at specific well sites. The large main line compressor building located near Vineyard Bluffs on the Esperson property will be evaluated separately, as a part of specific noise analyses to be conducted for future development projects proposed on the Esperson property.

**Figure 11-5
FUTURE NOISE CONTOURS**



FUTURE NOISE PERFORMANCE STANDARDS

Rio Vista's exterior noise standards for new uses affected by traffic and airport noise under this General Plan update range from 60 to 70 dBA Ldn. *Table 11-2* illustrates these standards for various noise-sensitive land uses; these standards are consistent with those recommended by the State Office of Noise Control. The standards shown in *Table 11-2* are most appropriately applied to land uses adjacent to continuous noise sources, such as roadway traffic noise.

Standards based on 24-hour weighting are not adequate to address certain noise sources, particularly industrial noise sources, which occur infrequently but at a potentially higher intensity. Rio Vista's exterior noise standards for new uses affected by non-transportation (stationary) noise sources under the General Plan update range from 50 to 65 dBA Ldn. *Table 11-3* contains the noise standards for new uses affected by stationary noise sources, including natural gas pipelines.

ACOUSTICAL ANALYSIS OF DEVELOPMENT PROJECTS

During initial review of development proposals, it may be determined that noise levels have the potential to exceed City noise standards if the project were implemented. In such cases, the City will require that an acoustical analysis be prepared to further evaluate the extent to which mitigation would be required if the project were approved. This measure includes projects proposed within the estimated future noise contours shown in *Figures 11-4* and *11-5*. *Table 11-4* outlines the City's requirements for the preparation of acoustical analyses. These analyses will be the responsibility of the project applicant.

TABLE 11-2
Noise Standards for New Uses Affected by Traffic and Airport Noise
City of Rio Vista Noise Element

New Land Use	Outdoor Activity Area - Ldn	Interior - Ldn/Peak Hour Leq ¹	Notes
All residential	60-65	45	2, 3, 4, 8
Transient lodging	65	45	5
Hospitals and nursing homes	60	45	6
Theaters and auditoriums	---	35	
Churches, meeting halls, schools, and libraries	60	40	
Office buildings	65	45	7
Commercial buildings	65	50	7
Playgrounds and parks	70	---	
Industry	65	50	7

Notes:

1. For traffic noise in the City of Rio Vista, Ldn and peak-hour Leq values are estimated to be approximately similar. Interior noise level standards are applied in noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
2. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
3. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas, or tennis courts. Where such areas are not provided in multi-family residential uses, the standards shall be applied at individual patios and balconies of the development.
4. Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB Ldn may be allowed – provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.
6. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
7. Only the exterior spaces of these uses designated for employee or customer relaxation are considered sensitive.
8. These standards are consistent with the *Airport/Land Use Compatibility Plan* (Solano County Airport Land Use Commission, 1988).

TABLE 11-3
Noise Standards for New Uses Affected by Non-Transportation Noise
City of Rio Vista Noise Element

New Land Use	Outdoor Activity Area - Leq		Interior - Leq	Notes
	Daytime	Nighttime	Day & Night	
All residential	50	45	35	1, 2, 7, 8
Transient lodging	55	---	40	3
Hospitals and nursing homes	50	45	35	4,8
Theaters and auditoriums	---	---	35	
Churches, meeting halls, schools, and libraries	55	---	40	
Office buildings	55	---	45	5, 6
Commercial buildings	55	---	45	5, 6
Playgrounds and parks	65	---	---	6
Industry	65	65	50	5

Notes:

1. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
 2. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas, or tennis courts. Where such areas are not provided in multi-family residential uses, the standards shall be applied at individual patios and balconies of the development.
 3. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas, and are not commonly used during night-time hours.
 4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
 5. Only the exterior spaces of these uses designated for employee or customer relaxation are considered sensitive to noise.
 6. The outdoor activity areas of office, commercial, and park uses are not typically used during nighttime hours.
 7. It may not be possible to achieve compliance with this standard at residential uses located immediately adjacent to loading dock areas of commercial uses while trucks are unloading. The daytime and night-time noise level standards applicable to loading docks shall be 55 and 50 dB Leq, respectively.
 8. The City will apply noise performance standards as outlined in the policies of this Safety & Noise element to ensure that the noise generated from natural gas pipeline compressors is not intrusive for residents living near these sites. Adopting the recommendations of the State's Model Noise Control Ordinance for rural residential areas, the City will adopt a noise standard of not greater than 45 dBA at the residential property line. This higher-than-usual standard for outdoor noise accounts for the continual generation of "white noise" resulting from the compression in natural gas pipelines.
- General Notes: a. The Table 11-3 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music and for recurring impulsive sounds.
- b. If the existing ambient noise level exceeds the standards in Table 11-3, the noise level standards shall be increased at 5-dB increments to encompass the ambient level.

TABLE 11-4
Requirements for Acoustical Analyses Prepared in Rio Vista

An acoustical analysis prepared pursuant to the Noise element shall:

1. Be the responsibility of the applicant.
2. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
4. Estimate existing and projected (cumulative City buildout) noise levels in terms of the standards in Tables 11-2 and 11-3, and compare those levels to the adopted policies of the Noise element.
5. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms and evaluate possible sleep disturbance.
6. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.
7. Describe the post-project assessment program that could be used to evaluate the effectiveness of the proposed mitigation measures.

F. Goals, Policies, and Implementing Actions

The implementing actions associated with each policy are fully described at the end of this chapter.

SAFETY

SEISMIC AND GEOLOGIC HAZARDS

GOAL 11.1 TO MINIMIZE INJURY AND PROPERTY DAMAGE DUE TO SEISMIC ACTIVITY AND GEOLOGIC HAZARDS.

Policy	Implementing Action
11.1.A The City shall continue to monitor seismic activity in the region and take appropriate action if significant seismic hazards, including potentially active faults, are discovered in the planning area.	SN-1 <i>California Department of Mines and Geology Studies</i>
	SN-2 <i>Interagency Coordination</i>
11.1.B The City shall continue to mitigate the potential impacts of geologic hazards.	SN-3 <i>Uniform Building Code</i>
	SN-4 <i>Development Review</i>
	SN-5 <i>Subdivision Ordinance Review and Update</i>
11.1.C Soil erosion and sedimentation shall be minimized by maintaining compatible land uses, suitable building designs, and appropriate construction techniques.	SN-4 <i>Development Review</i>
	SN-5 <i>Subdivision Ordinance Review and Update</i>
	SN-6 <i>Grading and Drainage Ordinance</i>
	SN-7 <i>Specific Plans</i>
11.1.D Development projects shall comply with state seismic and building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hazardous material storage facilities, bridges, and large public assembly halls.	SN-8 <i>Land Use Map</i>
	SN-1 <i>California Department of Mines and Geology Studies</i>
	SN-3 <i>Uniform Building Code</i>
	SN-4 <i>Development Review</i>
	SN-5 <i>Subdivision Ordinance Review and Update</i>

Policy	Implementing Action
11.1.E	The City shall require contour grading, where feasible, and revegetation to mitigate the appearance of engineered slopes and to control erosion.
	SN-4 <i>Development Review</i> SN-6 <i>Grading and Drainage Ordinance</i>

FLOOD CONTROL

GOAL 11.2 TO MINIMIZE THE POTENTIAL FOR LOSS OF LIFE AND PROPERTY DUE TO FLOODING THROUGH THE USE OF FLOOD CONTROL SOLUTIONS THAT ARE COST EFFECTIVE AND MINIMIZE ENVIRONMENTAL IMPACTS.

Policy	Implementing Action
11.2.A	The City shall require that new development on hillsides use design, construction, and maintenance techniques that minimize risk to life and property from slope failure, landslides, and flooding.
	SN-4 <i>Development Review</i> SN-5 <i>Subdivision Ordinance Review and Update</i> SN-6 <i>Grading and Drainage Ordinance</i> SN-9 <i>Zoning Ordinance Review and Update</i> SN-10 <i>Sensitive Local Resource Areas Map</i>
11.2.B	Through land use planning, zoning, and other restrictions, the City shall continue to regulate all uses and development in areas subject to potential flooding.
	SN-4 <i>Development Review</i> SN-5 <i>Subdivision Ordinance Review and Update</i> SN-7 <i>Specific Plans</i> SN-8 <i>Land Use Map</i> SN-9 <i>Zoning Ordinance Review and Update</i> SN-10 <i>Sensitive Local Resource Areas Map</i> SN-11 <i>Local, State, and Federal Funds</i>

Policy		Implementing Action	
11.2.C	The City shall minimize the potential for flood damage to public and emergency facilities, utilities, roadways, and other infrastructure.	SN-4 SN-5 SN-9 SN-10 SN-11 SN-12	<i>Development Review</i> <i>Subdivision Ordinance Review and Update</i> <i>Zoning Ordinance Review and Update</i> <i>Sensitive Local Resource Areas Map</i> <i>Local, State, and Federal Funds</i> <i>Flood Insurance Rate Map</i>
11.2.D	The City shall require new development to provide sufficient mitigation in order to ensure that the cumulative rate of peak runoff does not exceed pre-development levels.	SN-4 SN-5 SN-6	<i>Development Review</i> <i>Subdivision Ordinance Review and Update</i> <i>Grading and Drainage Ordinance</i>

NATURAL GAS WELLS

GOAL 11.3 TO ENSURE THE PUBLIC SAFETY DURING ONGOING NATURAL GAS WELL DRILLING AND EXTRACTION OPERATIONS.

Policy		Implementing Action	
11.3.A	Gas well sites shall be included in passive areas proposed by development projects, whenever feasible, rather than in the interior of neighborhoods.	SN-4	<i>Development Review</i>
11.3.B	It shall be the responsibility of the developer <i>and</i> the gas company to consider future potential neighborhood concerns when preparing development plans, tentative maps, and accommodation agreements.	SN-4	<i>Development Review</i>

Policy	Implementing Action
11.3.C The City shall require a safety plan and a detailed description of emergency response procedures for all gas well operations within new residential developments.	SN-4 <i>Development Review</i> SN-13 <i>Hazardous Materials Business Plan and Spill Prevention, Control, and Countermeasures Plan</i> SN-14 <i>Comprehensive Emergency Management Plan</i>
11.3.D Prior to purchase, the City shall require the developer or seller to provide full disclosure of health and safety considerations from gas well operations to potential homebuyers.	SN-4 <i>Development Review</i> SN-15 <i>Disclosure Documents</i>

POLICE SERVICES

GOAL 11.4 TO MAINTAIN A PROFESSIONAL LAW ENFORCEMENT AGENCY THAT PROACTIVELY PREVENTS CRIME; CONTROLS CRIME THAT THE COMMUNITY CANNOT PREVENT; AND REDUCES FEAR AND ENHANCES THE SECURITY OF THE COMMUNITY.

Policy	Implementing Action
11.4.A The Police Department shall respond to both emergency and routine calls for service in a timely manner consistent with department policy.	SN-16 <i>Police Department Policy</i>
11.4.B The City shall ensure that the Police Department uses modern technology and provides adequate training to maximize job performance.	SN-16 <i>Police Department Policy</i> SN-17 <i>Police Department Field Training Program</i>
11.4.C The City shall provide extensive community-based service and education programs designed to prevent crime and emphasize citizen protection and involvement.	SN-16 <i>Police Department Policy</i> SN-18 <i>Public Education/Awareness Program</i>

Policy	Implementing Action
11.4.D Parks shall be designed to facilitate surveillance by adjoining residents, security services, and police.	SN-4 <i>Development Review</i>

FIRE PROTECTION

GOAL 11.5 TO PROTECT AGAINST THE LOSS OF LIFE, PROPERTY, AND THE ENVIRONMENT BY APPROPRIATE PREVENTION AND SUPPRESSION MEASURES.

Policy	Implementing Action
11.5.A The City shall continue to pursue fire prevention programs and standards.	SN-3 <i>Uniform Building Code</i> SN-19 <i>Fire Prevention Programs</i> SN-20 <i>Fire and Safety Codes</i>

11.5.B The City shall strive to maintain its existing service levels. The City shall periodically evaluate service levels as population increases under this General Plan.	SN-2 <i>Interagency Coordination</i> SN-7 <i>Specific Plans</i> SN-21 <i>Capital Improvement Program</i> SN-22 <i>Dedications, Fees, and Exactions</i> SN-23 <i>Annual Report</i>
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11.5.C The City shall require that timing of construction of fire stations be phased to be ready to serve development as it occurs.	SN-7 <i>Specific Plans</i> SN-21 <i>Capital Improvement Program</i> SN-22 <i>Dedications, Fees, and Exactions</i>
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11.5.D The City shall monitor fire department service levels annually concurrent with the City budget process.	SN-23 <i>Annual Report</i>
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HAZARDOUS MATERIALS

GOAL 11.6 TO PROTECT THE COMMUNITY’S HEALTH, SAFETY, NATURAL RESOURCES, AND PROPERTY THROUGH REGULATION OF USE, STORAGE, TRANSPORT, AND DISPOSAL OF HAZARDOUS MATERIALS.

Policy	Implementing Action
11.6.A The City shall require the disclosure of the use and storage of hazardous materials in existing and proposed industrial and commercial activities, and the siting of hazardous waste disposal facilities, in accordance with Solano County guidelines and State law.	SN-4 <i>Development Review</i> SN-13 <i>Hazardous Material Business Plan and SPCC</i> SN-24 <i>Countywide Integrated Waste Management Plan</i>
11.6.B The City shall establish a hazardous materials truck route through the City.	SN-25 <i>Circulation & Mobility Element</i>
11.6.C The City shall comply with State law regarding the use of toxic chemicals in parks.	SN-26 <i>Resource Maintenance and Management Programs</i> SN-27 <i>California Health and Safety Code.</i>
11.6.D The City shall ensure the proper use, storage, and disposal of toxic chemicals to the greatest extent feasible.	SN-13 <i>Hazardous Materials Business Plan and Spill Prevention, Control, and Countermeasures Plan</i> SN-24 <i>Countywide Integrated Waste Management Plan</i> SN-26 <i>Resource Maintenance and Management Programs</i> SN-28 <i>Best Management Practices</i>
11.6.E The City shall ensure that it maintains sufficient resources, contacts, and personnel to provide the public with emergency notification in the event of a hazardous materials spill or airborne release.	SN-2 <i>Interagency Coordination</i> SN-14 <i>Comprehensive Emergency Management Plan</i> SN-29 <i>Public/Private Cooperation</i>

EMERGENCY SERVICES

GOAL 11.7 TO PROVIDE EMERGENCY SERVICES IN A WELL-PLANNED, COST-EFFECTIVE, AND PROFESSIONAL MANNER THROUGH THE BEST UTILIZATION OF AVAILABLE EQUIPMENT, FACILITIES, AND TRAINING.

Policy	Implementing Action
11.7.A The City shall strive to maintain its quick response time for emergency calls.	SN-2 <i>Interagency Coordination</i> SN-7 <i>Specific Plans</i> SN-21 <i>Capital Improvement Program</i> SN-22 <i>Dedications, Fees, and Exactions</i> SN-23 <i>Annual Report</i>
11.7.B The City shall continue to provide first response for emergency calls.	SN-14 <i>Comprehensive Emergency Management Plan</i>
11.7.C The City shall continue its efforts toward increasing the ability of Rio Vista Fire Department to provide paramedic services.	SN-1 <i>Intergovernmental Coordination</i> SN-30 <i>Legislative Monitoring</i>
11.7.D The City shall advocate for ambulance services to be based in Rio Vista.	SN-1 <i>Intergovernmental Coordination</i> SN-30 <i>Legislative Monitoring</i>
11.7.E The City shall comply with and periodically update the <i>Comprehensive Emergency Management Plan</i> , and ensure that participants are prepared to efficiently carry out assigned functions.	SN-14 <i>Comprehensive Emergency Management Plan</i>
11.7.F The City shall ensure that it maintains sufficient resources, contacts, and personnel to provide the community with an effective notification system in the event of an emergency.	SN-2 <i>Interagency Coordination</i> SN-23 <i>Annual Report</i> SN-29 <i>Public/Private Cooperation</i>

HEALTH SERVICES

GOAL 11.8 TO HELP ENSURE THAT A WIDE RANGE OF HEALTH AND MEDICAL SERVICES ARE CONVENIENTLY AVAILABLE TO ALL RIO VISTANS.

Policy	Implementing Action
11.8.A The City shall approve changes in zoning and performance standards, wherever possible, to facilitate the sensible siting and construction of health and medical facilities.	SN-4 <i>Development Review</i> SN-9 <i>Zoning Ordinance Review and Update</i>
11.8.B The City shall seek to establish a centrally located health care facility in the community.	SN-11 <i>Local, State, and Federal Funds</i> SN-31 <i>Economic Development Strategic Plan</i> SN-32 <i>Marketing Assistance and Policy Support</i>
11.8.C The City shall seek to co-locate a health care facility with other types of medical care and social service facilities.	SN-31 <i>Economic Development Strategic Plan</i> SN-32 <i>Marketing Assistance and Policy Support</i>
11.8.D The City shall assist local health service and care providers in obtaining state and federal grants to improve their facilities and services.	SN-11 <i>Local, State, and Federal Funds</i>
11.8.E The City shall seek to foster the delivery of services to before- and after-school programs.	SN-11 <i>Local, State, and Federal Funds</i> SN-29 <i>Public/Private Cooperation</i> SN-31 <i>Economic Development Strategic Plan</i> SN-32 <i>Marketing Assistance and Policy Support</i>
11.8.F The City shall assist local service providers in preparing a comprehensive needs assessment and planning process that will lead to proactive recruitment of medical facilities in Rio Vista.	SN-2 <i>Interagency Coordination</i> SN-11 <i>Local, State, and Federal Funds</i> SN-29 <i>Public/Private Cooperation</i> SN-31 <i>Economic Development Strategic Plan</i>

ODORS

GOAL 11.9 TO ENSURE THAT RESIDENTS ARE NOT EXCESSIVELY EXPOSED TO ODORS GENERATED FROM AGRICULTURAL OR INDUSTRIAL SOURCES.

Policy	Implementing Action
11.9.A The City shall continue to monitor sources of odors that can affect the quality of life in the City and advise its citizens of their options in addressing these odors.	SN-2 <i>Interagency Coordination</i> SN-29 <i>Public/Private Cooperation</i> SN-33 <i>Solano County Appeals Process</i>
11.9.B The City shall implement the provisions of Assembly Bill 1190 to provide that agricultural activities, operations, and facilities, or appurtenances thereof, do not constitute a nuisance as long as they continue to operate in a manner similar to that in which they have historically operated. <i>(Also refer to the Resource Conservation & Management element.)</i>	SN-2 <i>Interagency Coordination</i> SN-29 <i>Public/Private Cooperation</i>

HIGHWAY 12

GOAL 11.10 TO ENSURE SAFETY OF BICYCLISTS AND PEDESTRIANS ALONG HIGHWAY 12.

Policy	Implementing Action
11.10.A The City shall assign a priority to construction of an undercrossing on Highway 12 for bicyclists and pedestrians. <i>(See Policy 8.3.K in the Circulation & Mobility element.)</i>	SN-2 <i>Interagency Coordination</i> SN-11 <i>Local, State, and Federal Funds</i> SN-21 <i>Capital Improvement Program</i> SN-25 <i>Circulation & Mobility Element</i>

RIO VISTA AIRPORT

GOAL 11.11 TO ENSURE PUBLIC SAFETY DURING AIRPORT OPERATIONS.

Policy	Implementing Action
11.11.A The City shall require that development projects in the vicinity of the Rio Vista Airport consider all applicable safety policies, City standards, and land use compatibility guidelines.	SN-4 <i>Development Review</i>
	SN-34 <i>Airport/Land Use Compatibility Plan</i>
	SN-35 <i>Site Design Review</i>

NOISE

MOBILE AND STATIONARY NOISE SOURCES

GOAL 11.12 TO PROTECT NOISE-SENSITIVE LAND USES FROM NEW NOISE-GENERATING USES THAT WOULD BE INCOMPATIBLE WITH SUCH SENSITIVE RECEPTORS.

Policy	Implementing Action
11.12.A The City shall implement the standards in <i>Table 11-2</i> for new uses affected by traffic and airport noise.	SN-4 <i>Development Review</i>
	SN-34 <i>Airport/Land Use Compatibility Plan</i>
	SN-36 <i>Noise Performance Standards</i>
	SN-37 <i>Noise Level Contour Maps</i>
11.12.B The City shall require appropriate noise attenuation measures to be included in the project design for proposed noise-sensitive uses in proximity to existing noise-producing uses, as needed, to be in compliance with the standards in <i>Tables 11-2 and 11-3</i> .	SN-4 <i>Development Review</i>
	SN-34 <i>Airport/Land Use Compatibility Plan</i>
	SN-35 <i>Site Design Review</i>
	SN-36 <i>Noise Performance Standards</i>
	SN-37 <i>Noise Level Contour Maps</i>

Policy	Implementing Action	
11.12.C Where noise attenuation is required to meet the standards of this element, an emphasis shall be placed on site planning and project design. These measures may include, but are not limited to, building orientation, setbacks, landscaping and building construction practices.	SN-4 SN-35	<i>Development Review</i> <i>Site Design Review</i>
11.12.D The use of noise barriers, such as sound walls, shall be considered as a means of achieving the noise standards only after other practical design-related noise mitigation measures have been integrated into the project.	SN-4 SN-35	<i>Development Review</i> <i>Site Design Review</i>
11.12.E The City shall assess traffic noise impacts generated by proposed development in the City of Rio Vista based on Solano Transportation Authority's traffic volumes for near-term traffic levels projected to occur in 2010.	SN-4 SN-36 SN-37 SN-38	<i>Development Review</i> <i>Noise Performance Standards</i> <i>Noise Level Contour Maps</i> <i>Major Investment Study and Project Study Report Equivalent</i>
11.12.F The City shall require any necessary acoustical analysis to assess compliance with the City's Noise element standard. Acoustical analyses shall be prepared in accordance with the requirements in <i>Table 11-4</i> .	SN-4 SN-36 SN-37	<i>Development Review</i> <i>Noise Performance Standards</i> <i>Noise Level Contour Maps</i>

Policy	Implementing Action
11.12.G	The City shall apply the standards in <i>Table 11-3</i> to both new noise-sensitive land uses and new noise-generating uses, with the responsibility for noise mitigation placed on the new use. For example, if a developer proposed construction of a new apartment complex near an existing industry, the developer would be responsible for including appropriate noise mitigation in the project design to achieve compliance at the apartments with the standards in <i>Table 11-3</i> . Conversely, if a new industry were proposed near an existing apartment complex, the industry would be responsible for including appropriate noise mitigation in the project design to achieve compliance with the standards in <i>Table 11-3</i> at the existing apartment building.
	SN-4 <i>Development Review</i>
	SN-5 <i>Subdivision Ordinance Review and Update</i>
	SN-36 <i>Noise Performance Standards</i>
	SN-39 <i>Zoning Ordinance (Section 513) Review and Update</i>

GOAL 11.13 TO PREVENT THE ENCROACHMENT OF NOISE-SENSITIVE LAND USES INTO AREAS AFFECTED BY EXISTING NOISE-PRODUCING USES. MORE SPECIFICALLY, TO RECOGNIZE THAT NOISE IS AN INHERENT BY-PRODUCT OF MANY INDUSTRIAL PROCESSES AND TO PREVENT NEW NOISE-SENSITIVE LAND USES FROM BEING DEVELOPED IN AREAS AFFECTED BY EXISTING INDUSTRIAL NOISE SOURCES.

Policy	Implementing Action
11.13.A	The City shall require appropriate noise attenuation measures to be included in the project design for proposed noise-sensitive uses in proximity to existing noise-producing uses, as needed, to be in compliance with the standards in <i>Tables 11-2 and 11-3</i> .
	SN-4 <i>Development Review</i>
	SN-5 <i>Subdivision Ordinance Review and Update</i>
	SN-36 <i>Noise Performance Standards</i>
	SN-37 <i>Noise Level Contour Maps</i>
	SN-39 <i>Zoning Ordinance (Section 513) Review and Update</i>

GOAL 11.14 TO ENSURE THAT NOISE ASSOCIATED WITH GAS WELL PIPELINE COMPRESSION IS COMPATIBLE WITH NEARBY RESIDENTIAL USES.

Policy	Implementing Action
<p>11.14.A The City shall adopt a performance standard of 45 dBA (maximum) at any residential dwelling or outdoor activity area, whichever is closer to the noise source. An appropriate standard for the large main line compressor building located near Vineyard Bluffs on the Esperson property will be determined separately, through specific noise analyses conducted for development projects proposed for the Esperson property.</p>	<p>SN-4 <i>Development Review</i> SN-36 <i>Noise Performance Standards</i> SN-40 <i>Hydrocarbons Ordinance Review and Update</i></p>
<p>11.14.B The City, developers, and gas well companies shall recognize a shared responsibility to attenuate noise generated by gas well operations in proximity to sensitive noise receptors, and that appropriate noise attenuation measures shall be agreed upon prior to project approval.</p>	<p>SN-4 <i>Development Review</i> SN-36 <i>Noise Performance Standards</i> SN-40 <i>Hydrocarbons Ordinance Review and Update</i></p>
<p>11.14.C If the State’s regulatory climate changes so that local governments are no longer allowed to restrict energy companies, the responsibility for meeting the noise standard shall shift to the developer where plans include development near mineral reserve (future gas well) sites.</p>	<p>SN-4 <i>Development Review</i> SN-36 <i>Noise Performance Standards</i> SN-40 <i>Hydrocarbons Ordinance Review and Update</i></p>
<p>11.14.D Prior to purchase, the City shall require the developer or seller to provide full disclosure of potential noise impacts from gas well operations (particularly compressor noise) to potential homebuyers.</p>	<p>SN-4 <i>Development Review</i> SN-15 <i>Disclosure Documents</i></p>

CONSTRUCTION NOISE

GOAL 11.15 TO MINIMIZE THE NUISANCE OF NOISE GENERATED BY CONSTRUCTION ACTIVITIES.

Policy	Implementing Action
11.15.A The City shall regulate construction noise to reduce impacts on adjacent uses consistent with Section 513 of the Zoning Ordinance (Noise Regulation).	SN-4 <i>Development Review</i> SN-39 <i>Zoning Ordinance (Section 513) Review and Update</i>
11.15.B Noise associated with construction activities shall be exempt from the noise standards cited in Table 11-3.	SN-4 <i>Development Review</i> SN-39 <i>Zoning Ordinance (Section 513) Review and Update</i>
11.15.C The City shall limit construction activities to between the hours of 7 a.m. and 5 p.m. unless an exemption is received from the City to cover special circumstances.	SN-4 <i>Development Review</i> SN-39 <i>Zoning Ordinance (Section 513) Review and Update</i>
11.15.D The City shall require all internal combustion engines used in conjunction with construction activities to be muffled according to the equipment manufacturer’s requirements.	SN-4 <i>Development Review</i> SN-41 <i>California Vehicle Code</i>

G. Implementing Actions for Safety & Noise (SN)

Each of the following actions will be used, wherever appropriate, to implement the goals and policies of the Safety & Noise element.

SN-1 CALIFORNIA DEPARTMENT OF MINES AND GEOLOGY STUDIES (Existing)

The City will continue to monitor California Department of Mines and Geology studies for potentially active faults in the vicinity of Rio Vista. Information on a previously unknown or inactive fault that is discovered or becomes active can be obtained by monitoring such studies. Discovery of any such fault in the region may require modification to the City's development and building codes.

SN-2 INTERAGENCY COORDINATION (Existing)

Seismic and Flood Hazards. The City will continue its coordination with other agencies on issues of seismic safety and flood control. Coordination between the City and Solano County occurs through several mechanisms, including the distribution of development proposals for review and comment. The City will continue its cooperation with federal, state, and local agencies—including the U.S. Army Corps of Engineers, Federal Emergency Management Agency, and California Department of Fish and Game. *(Note: Solano County Water Agency acts as the County Flood Control District. Its role with the City in flood control efforts, however, is minimal—the only project managed by this agency in the vicinity of Rio Vista is the Mellon Levee, located at the southern end of the Yolo Bypass.)*

Odors. The City will maintain updated information through the Solano County Department of Environmental Management to ensure that the public is informed about the proposal, use, and appeal of the use of bio solids fertilizer. The City will cooperate with the Solano County Agricultural Commission in ensuring that agricultural practices are in accordance with County requirements.

Police and Fire Protection Services. The City will continue to participate in its mutual aid agreements and coordination between the City's police and fire departments and other jurisdictions and law enforcement/fire protection agencies.

Emergency Services. The City will continue to participate in the Joint Powers Authority (JPA) with other cities and Solano County, including the Solano County Emergency Medical Services (EMS) Department, to: (1) ensure that an effective and broad-reaching community-wide emergency notification system is in place; (2) increase the availability of ambulance and paramedic services in Rio Vista; and (3) strive to maintain and improve, where needed, the emergency response time. Rio Vista will work with the JPA toward increasing staffing and obtaining 24-hour coverage. The City also will work closely with the JPA and continue to evaluate the 5-year contract with EMT, the ambulance service provider, to improve ambulance services in Rio Vista.

Rio Vista Airport. The City will refer all development projects within the vicinity of the Rio Vista Airport to the Solano County Airport Land Use Commission for its review and comment. In addition, the City will work with the Commission to periodically assess and update the *Airport/Land Use Compatibility Plan* (Solano County Airport Land Use Commission, 1988).

SN-3 UNIFORM BUILDING CODE
(Existing)

Through the Building and Public Works Departments, the City will continue to enforce and update the Uniform Building Code, which includes construction standards for seismic and geologic safety.

SN-4 DEVELOPMENT REVIEW
(Existing)

The City's Development Review process involves a review of the proposed project's compliance with local ordinances and regulations; an environmental review in accordance with the requirements of the California Environmental Quality Act (CEQA); site design review (*described in greater detail below in SN-35*), and drafting of conditions of approval. The following is a general discussion of the City's development review process as it pertains to safety and noise issues associated with proposed development projects.

SAFETY

Seismicity, Flooding, Grading, and Drainage. The City will refer all development proposals to the Building Department, Public Works Department, and City Engineer to address potential flooding, seismic, grading, soils, or geologic impacts. A detailed site analysis will be required for major development proposals falling within ¼ mile of a fault (i.e., fault location and activity data, and hazard mitigation measures). The environmental review for projects must include a full inventory of potential grading and drainage impacts—along with any potential soil, geologic, or flood concerns; an assessment of potential project impacts; and an identification of mitigation and monitoring measures. Issues related to slopes, liquefaction, ground failure, flooding, and erosion must be addressed. Project design, grading, and building construction techniques must be used, as appropriate, to minimize these impacts.

The City will require the applicant to provide specific data requirements pertaining to potential hazards, including slope instability, seismicity, flooding, and fire. The data on hazards will assist the City and the applicant in determining the permitted level of development on the site.

Through the development review process, the City will implement the following actions to prevent flooding and excessive runoff:

- Promote the use of open grassy swales to carry runoff from urban areas to natural drainages.
- Discourage large continuous paved areas in development unless adequate drainage is provided.

- Encourage development to maximize the use of pervious paving materials.
- Ensure a design that prevents the diversion of runoff onto neighboring properties.
- Encourage development to discharge runoff into pervious drainageways.
- Locate building pads a sufficient distance above the 100-year floodplain elevation.
- Ensure that all storm drainage culverts and bridges along designated floodplains are designed to accommodate, at a minimum, 100-year flood volumes. Where practicable, improvements should accommodate 150 percent of the 100-year volumes.

Gas Well Sites. The City will review proposed locations of natural gas well sites when tentative maps and development projects are submitted for review and approval. The Hydrocarbons Ordinance and the California Environmental Quality Act (CEQA) will be considered during this development review process to verify compliance and ensure that sufficient mitigation is in effect to guarantee public safety. The City is to receive assurances from the gas companies that all gas well sites, compressor sites, and dehydration units will be checked regularly by operators (allowing for flexibility to shift the focus, as needed, from consistently running wells to higher priority wells), and that data for gas operations will be recorded. The operations/business plan should specify the frequency and protocol for checking on wells. Operators shall be trained to identify potential problems and report any negative findings to the appropriate personnel immediately and to the City, as deemed appropriate, so that proper response can be initiated.

Police and Fire Protection Services. The City will refer all development proposals to the Rio Vista Police Department and Fire Department for review and comment. The review process will consider the provision of access to lands for emergency services, street access to all structures, fire and crime prevention programs, and the enforcement of building and fire codes. The departments' comments will be considered during the development review process.

Hazardous Materials. The City will refer any development proposal that may be affected by, or affect, the storage, handling, or disposal of hazardous materials to the Fire Department and other appropriate agencies responsible for hazardous materials. Where appropriate, the County's Hazardous Materials Management Plan will be applied and, if required by State law, a Risk Management Prevention Plan. A business plan and procedures shall be prepared and submitted to the City's police and fire departments as a requirement of any administrative or use permit under the City's Hydrocarbon Ordinance, where deemed appropriate by the decision-making entity (staff or Planning Commission), and in other circumstances where applicable. Such plans shall contain all provisions required by Assembly Bill 2185, Department of Transportation (DOT) and Cal-OSHA regulations for environmental controls of hazardous materials and other provisions that may be required by the City. (*Note: The Hazardous Material Business Plan [HMBP] and Spill Prevention, Control and Countermeasures [SPCC] Plan are outlined in SN-13 below*).

Medical Services. The development review process includes discretionary review by the Planning Commission and Design Review Committee, based on consideration of General Plan

objectives and policies, and criteria established by the Zoning Ordinance and other City regulations and adopted guidelines. Through this process and the requirements of CEQA, the City will work with project proponents to establish their health and medical facilities in areas of the City that are convenient, close to public transit, or located in a pedestrian network. To the greatest extent possible, the City will remove regulatory and financial barriers to applicants with projects that will help to fill the gap in health and medical services.

NOISE

The City will continue its existing development review process in accordance with the requirements contained in such documents as Section 513 of the Zoning Ordinance (Noise Regulation), the Uniform Building Code, State Noise Insulation Standards (Title 24), Specific Plans, the City's Design Guidelines, CEQA, Solano County Environmental Health regulations, and other relevant statutes and regulations.

Because noise considerations are an integral part of the community planning and design process, the City will require noise information from the project applicant to adequately evaluate the effects of project noise on the community. Conditions of approval will be developed, along with mitigation measures, to ensure that the goals and policies of the Safety & Noise element are met.

Natural Gas Wells. The City will review proposed locations of natural gas well sites when tentative maps and development projects are submitted for review and approval. The City will consider the Hydrocarbons Ordinance and CEQA during this development review process, to verify compliance and ensure that adequate measures are in place to mitigate noise impacts.

With a performance standard of 45 dBA at the residential property line, the City expects that there will be a shared responsibility between the developer and the natural gas company for mitigating noise impacts where natural gas wells are already in production, and in the establishment of new wells.

Adequate safeguards appear to be in place through the development review process, CEQA, the Hydrocarbons Ordinance, and the Solano County Department of Environmental Management to address noise, health, and hazard issues associated with drilling and production of natural gas wells.

Schools. In accordance with Education Code Section 17215, any proposed school sites within two miles of any of the Rio Vista Municipal Airport runways will require a school site evaluation by the Division of Aeronautics.

SN-5 **SUBDIVISION ORDINANCE REVIEW AND UPDATE** *(Proposed)*

The City will review and revise its Subdivision Ordinance as needed to incorporate the specific data and design requirements related to surface faulting, ground failure, flooding, and noise that are contained in this General Plan update.

SN-6 GRADING AND DRAINAGE ORDINANCE
(Proposed)

The City will enact a Grading and Drainage Ordinance. The ordinance will require special excavation precautions to minimize hazards areas of slope instability, limit grading to those operations that would enhance ground stability without drastic site alteration, require special surface and subsurface drainage provisions, require that grading restore rather than disrupt natural patterns and volumes of surface runoff, and limit the construction of impermeable surfaces (structures, patios, and roads) over naturally permeable soils and geologic areas.

SN-7 SPECIFIC PLANS
(Proposed)

SAFETY

The City will ensure that specific plans and planned unit developments (PUDs) are consistent with the goals and policies of the General Plan. Proposed specific plans will:

- Identify potential geologic, soil, and seismic hazards in the plan area and also include measures to reduce the risk of such hazards.
- Outline criteria for development on steep slope areas, as applicable, to ensure public safety and minimize environmental and aesthetic impacts.
- Include the designation and preservation of floodplain areas and adjacent habitat.
- Incorporate provisions for public infrastructure, utilities, and emergency services to remain functional during flood conditions to the greatest extent feasible. Development agreements may be used to secure implementation and funding provisions.
- Specify anticipated need, if any, for additional fire services based on land use designations in the plan area. The specific plan must include the location and size of fire facilities, a fire facilities phasing plan, and source(s) of funding (to be available at the time of development).

NOISE

All proposed specific plans and PUDs will be reviewed in terms of present and future noise levels and means of noise attenuation. The City will consider techniques such as site and building design, barriers, and traffic planning; these techniques will be incorporated into the specific plan as needed. Tentative maps and PUDs will incorporate noise attenuation techniques into the site design, based on more definitive noise considerations. Noise attenuation techniques may be required as conditions to the approval of such maps and permits.

Where conventional development practices are not appropriate, PUD procedures may be applied by the County to those lands that are proposed for development with identified constraints that may be hazardous to development. Presently, both County and participating city ordinances provide for PUD procedures as an alternative to conventional procedures.

The State-authorized specific plan technique provides the County and participating cities with an alternative regulatory measure to mandatory PUD. Specific area planning can be used to ensure that proposed development layouts adequately consider hazards to safety associated with development and natural resource values. The technique is particularly appropriate for larger development sites with a complex variety of natural and human-induced conditions and land use needs. Specific plans may include, but are not limited to, mapped analysis of soil, geologic, seismic, flood, noise, and visual conditions; and related controls on grading, building, building location, density, drainage, wildfire, flood protection, noise abatement, open space, circulation, access, landscaping, landscaping preservation, public facilities, and natural resource protection. A specific plan is, in effect, a publicly prepared and adopted PUD proposal. Such studies also provide an integrated and efficient means of environmental impact assessment. Specific plan preparation could be financed by groups of interested developers as part of the environmental impact report process or through special assessment district procedures.

SN-8 **LAND USE MAP**
(To be adopted as part of this General Plan)

In areas where potentially significant soil, erosion, and flooding impacts are identified, the City will consider open space or other appropriate land use designations, including those designated on the Land Use Map in the Land Use element.

SN-9 **ZONING ORDINANCE REVIEW AND UPDATE**
(Proposed)

Development regulations, primarily the zoning regulations, provide the standards for development, prescribe allowable uses, contain specific incentive provisions, and include other standards and procedures related to approval of development projects. The City will undertake a review and update of these ordinances and regulations to ensure that unnecessary obstacles are removed from the process of establishing health and medical facilities and services. The City also will continue to regulate all uses and development in areas subject to flooding through regular review and updates of the zoning ordinance.

SN-10 **SENSITIVE LOCAL RESOURCE AREAS MAP**
(To be adopted as part of this General Plan)

The Sensitive Local Resource Areas Map, as specified in the Safety & Noise element and the Resource Conservation & Management element, will be used to identify the boundaries of the 100-year floodplain and other environmentally sensitive areas where their development could result in potential hazards to the public.

SN-11 **LOCAL, STATE, AND FEDERAL FUNDS**
(Existing)

Flood Control. The City will pursue mechanisms to finance flood prevention and storm maintenance programs. If necessary, the City will consider alternative funding sources, including the establishment of a drainage utility and assessment district.

Health Services. The City of Rio Vista will work with local health and social services providers to pursue funding opportunities for planning, construction and staffing of health and medical facilities. Possible sources include the Wellness Foundation. The City will take the lead role in applying for funds that cannot be directly pursued (e.g., State of California Community Development Block Grant Program) by private, not-for-profit enterprises.

Police Services. The City will continue to pursue grants through the State Office of Traffic Safety and Office of Criminal Justice Planning to leverage local funding for equipment.

SN-12 FLOOD INSURANCE RATE MAP
(Existing)

The City will continue its participation in the National Flood Insurance Program, including adoption and administration of updated Federal Emergency Management Agency (FEMA) model ordinances and Flood Insurance Rate Map (FIRM).

SN-13 HAZARDOUS MATERIALS BUSINESS PLAN AND SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN
(Existing)

In accordance with Chapter 6.95 of the California Health and Safety Code, development sites that store above the threshold quantities of a hazardous material or any amount of hazardous waste will submit a Hazardous Materials Business Plan (HMBP) to the Solano County Department of Environmental Management. The HMBP will include an inventory of hazardous materials stored at a facility, with specific physical and chemical descriptions of each material. The HMBP will be reviewed annually and updated if any material changes affect the quantity or location of hazardous materials.

The HMBP also will include, where appropriate, a Consolidated Contingency Plan that describes the emergency response procedures to be taken in case of hazardous material spill or fire. The plan provides facility identification information, emergency contacts, and response procedures to be taken in the event of a hazardous material emergency. Emergency equipment capabilities, emergency services, and employee training also are outlined in the Plan.

Compliance with Title 40 of the Code of Federal Regulations – preparation of a Spill Prevention, Control and Countermeasures (SPCC) Plan also will be required, where appropriate. The SPCC Plan contains much of the same information as the contingency plan but is more detailed in the description of spill response and prevention measures.

SN-14 COMPREHENSIVE EMERGENCY MANAGEMENT PLAN
(Draft)

The City's Comprehensive Emergency Management Plan provides direction for responding to disastrous occurrences in Rio Vista. This plan, which meets the requirements of Solano County's policies on Emergency Response and Planning, the Standardized Emergency Management System (SEMS) Operations Area Response, defines the primary and support roles of City agencies and departments in after-incident damage assessment and reporting requirements. With this plan in place, it is the underlying goal of the Safety component of this

element to protect the life, property, and environment of community residents, businesses, employees and visitors.

The City will maintain and update the comprehensive Emergency Management Plan. The plan addresses interagency coordination, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides for the operation of police, fire and health services, as well as transportation alternatives in the event of a multi-hazard emergency. City evacuation procedures are described and are submitted to the State Office of Emergency Services (OES) for approval. The City will implement this plan in the event of a hazardous seismic or geologic occurrence.

The City's plan is being revised to become eligible for receipt of State and federal emergency aid. Once reviewed by the State OES and adopted by the City Council, the plan will be implemented and updated every 2 years as required by OES.

SN-15 DISCLOSURE DOCUMENTS
(Proposed)

Disclosure information on the existence of natural gas well sites within residential developments will be included promotional brochures for new residential developments. Deeds of trust for properties within these subdivisions will contain similar disclosures about the existence of natural gas wells in the vicinity. This measure will ensure that new property owners are notified that gas companies maintain the subsurface mineral rights to natural gas and are expected to conduct drilling and production operations in designated areas within the residential development.

SN-16 POLICE DEPARTMENT POLICY
(Existing)

The City will continue to emphasize the use of modern technology in providing effective law enforcement for the community. The Police Department sets as its goal to continue timely response and prioritization of all emergency calls. In addition, timely response to routine calls and the high visibility of patrol service will strengthen security within the community.

SN-17 POLICE DEPARTMENT FIELD TRAINING PROGRAM
(Existing)

The Police Department will continue to conduct its field training program for all new Police Department employees. The 5-week program emphasizes current law enforcement standards and techniques to ensure that employees have the skills necessary to carry out their duties.

SN-18 PUBLIC EDUCATION/AWARENESS PROGRAM
(Proposed)

The Rio Vista Police Department and Rio Vista Fire Department will continue working to provide extensive community-based service and education programs focusing on crime prevention, drug awareness, and fire prevention—with an emphasis on citizen protection and involvement.

For existing development that is incompatible with measured or projected noise contour levels, the City will provide information to occupants and property owners on possible noise abatement measures, such as berming, installing acoustical walls, and soundproofing (double glazing, caulking, and insulation).

SN-19 FIRE PREVENTION PROGRAMS
(Existing)

The Rio Vista Fire Department will continue to implement its fire prevention programs as follows:

- Present annual Fire Prevention Week at local schools.
- Assist businesses in preparing their fire prevention programs upon request.
- Conduct fire extinguisher demonstrations to service clubs and businesses upon request.
- Conduct fire inspections through the business license approval procedure.
- Carry out routine fire inspections to the extent possible, with schedule depending on staff availability.

SN-20 FIRE AND SAFETY CODES
(Existing)

Through the Rio Vista Fire Department (RVFD), the City will continue to enforce state and federal codes relating to fire and safety. Specifically, the RVFD will apply the Uniform Codes including, but not limited to, the Uniform Fire Code, California Fire Code, National Electrical Code, Uniform Mechanical Code, and codes relating to hazardous materials disposal to their inspection procedures. Where appropriate, RVFD will refer code violations to the City's Building Department for follow through to ensure full compliance with these codes.

SN-21 CAPITAL IMPROVEMENT PROGRAM
(Proposed)

The City will develop a Capital Improvement Program (CIP) to be used as a source of funding for capital improvements for police and fire facilities and equipment. The CIP plan will be reviewed and updated every 5 years to determine what changes or additions in facilities and equipment will be required.

SN-22 DEDICATIONS, FEES, AND EXACTIONS
(To be adopted as part of this General Plan)

Where determined to be necessary, the City will require, as a condition of project approval, the dedication of land or payment of appropriate fees and exactions to help offset municipal costs for fire protection facilities and services. As growth occurs, this measure will help to ensure the continued provision of adequate fire, police, and emergency response services and facilities.

SN-23 **ANNUAL REPORT**
(Proposed)

The City will prepare an annual report that addresses the provision of police, fire, and emergency services. Information from this report will be used to update the Comprehensive Emergency Management Plan and to evaluate the need for additional services in order to ensure that Rio Vista maintains desired response times and service levels as the community's population increases.

SN-24 **COUNTYWIDE INTEGRATED WASTE MANAGEMENT PLAN**
(Existing)

In accordance with the California Integrated Waste Management Act, Solano County and its seven incorporated jurisdictions adopted a Countywide Integrated Waste Management Plan in November 1995. The goal of the plan is to reduce the amount and hazard of special wastes generated, and to ensure environmentally safe disposal of special waste that cannot be reused, recycled, or composted. The plan has established an implementation schedule to achieve its objectives, including setting a target of at least 15 percent of Solano County households to replacing at least one household hazardous waste product with a safer, effective product or method each year; an additional 10 percent of households will participate in a household hazardous materials collection event each year. As part of this plan, Rio Vista will conduct periodic surveys of their residents to assess changes in the use of hazardous products.

SN-25 **CIRCULATION & MOBILITY ELEMENT**
(To be adopted as part of this General Plan)

The Circulation & Mobility element of this General Plan establishes specific truck routes where noise conflicts with land use compatibility issues are least likely to occur. Truck traffic associated with delivery and loading in residential and commercial areas will be limited to daytime periods when ambient noise levels are highest. *(Figure 8-5 illustrates the proposed truck routes for trucks hauling hazardous materials.)*

This element also proposes a circulation system that includes an undercrossing for pedestrians and bicyclists on Highway 12. Construction of this crossing will increase mobility within the community by providing a means of safe passage from developments north of Highway 12 to the downtown core. *(See Policy 8.3.K.)*

SN-26 **RESOURCE MAINTENANCE AND MANAGEMENT PROGRAMS**
(Proposed)

The City will establish a program to ensure the long-term maintenance and management of parks and designated open space areas. The program will address the frequency and type of maintenance needed, management and monitoring provisions to ensure the continued viability of the resource, and designated costs and funding sources. When the open space area is required as the result of permits issued by federal or state agencies, the maintenance and management program will be consistent with applicable permitting requirements. Funding should consider all municipal costs that will ensure public safety, including the use and storage of toxic chemicals.

SN-27 **CALIFORNIA HEALTH AND SAFETY CODE**
(Existing)

The City will comply with and enforce, to the extent feasible, Chapter 6.95, Section 25503 of the California Health and Safety Code. This chapter requires all businesses to report the quantity and locations of hazardous materials to the regulatory authority on an annual basis if the business stores (1) above 55 gallons of a liquid or 500 pounds of a solid hazardous material, (2) above 200 cubic feet of a compressed gas, or (3) a radioactive material that is handled in quantities for which an emergency plan is required.

SN-28 **BEST MANAGEMENT PRACTICES**
(Existing)

The City will require that developers use best management practices (BMPs) recommended by the U.S. Natural Resources Conservation Service. Approaches to design, construction, and maintenance techniques should ensure that development near a sensitive corridor would not cause or worsen natural hazards (e.g., erosion, sedimentation, flooding, and water pollution). Techniques will include erosion and sediment control practices, such as hay bales, turbidity screens, temporary vegetation, and other management practices to minimize siltation, sedimentation, and erosion. The City will require that these measures be left in place until disturbed areas are stabilized with permanent vegetation that will prevent the transport of sediment offsite. Additional BMPs to be used include oil and sand separators, grassy swales, detention ponds, vegetative buffers, and other source control and treatment measures.

SN-29 **PUBLIC/PRIVATE COOPERATION**
(Proposed)

The City will cooperate with private concerns in the areas of medical care facilities and agriculture to ensure public health and safety.

SN-30 **LEGISLATIVE MONITORING**
(Proposed)

The California Health and Safety Code prohibits cities from providing their own ambulance services. The counties are responsible for ambulance services in the cities. Rio Vista will continue to monitor legislation and support efforts to repeal or modify this statute, in order to allow Rio Vista to provide ambulance services in the city.

SN-31 **ECONOMIC DEVELOPMENT STRATEGIC PLAN**
(Proposed)

The City will prepare a Strategic Plan for Economic Development. The plan will:

- Include policies, strategies, and priorities for business attraction; community promotion and marketing; and appropriate, compatible and cost-effective business sectors on which to concentrate marketing efforts and resources.
- Identify resources needed.
- Analyze the strengths, weaknesses, and opportunities of the community for attracting business.

Specific issues and potential attraction strategies to be evaluated in the plan include: agribusiness and related sectors and services; technology and information; research and development; “back office” functions for various industries (accounting, billing, sales, and support services); medical and professional services; environmental products and services; and traditional manufacturing sectors. The plan will evaluate and identify strengths in attracting businesses, such as quality of life and location in the Delta; weaknesses in attracting businesses, such as isolation from interstate highways, infrastructure needs, and workforce; and review the lands currently designated for commercial and industrial activities to ensure that sufficient land capacity exists to accommodate potential opportunities. A marketing and development strategy will be recommended that will prioritize business sectors for attraction and retention efforts, and will identify crucial steps to provide infrastructure and correct deficiencies.

SN-32 MARKETING ASSISTANCE AND POLICY SUPPORT
(Existing)

The City will provide/refer/support marketing assistance and policy support for the Solano Economic Development Corporation (SEDCORP), a non-profit organization that is devoted to promoting business development and expansion in Solano County. SEDCORP assists municipalities and business entities by providing a marketing and educational forum and a clearinghouse for business location inquiries about Solano County. Other useful organizations and programs include the State Trade and Commerce Agency and the Department of Housing and Community Development.

SN-33 SOLANO COUNTY APPEALS PROCESS
(Under development)

In winter 2001-2002, after the fertilizing season is over in the area, Solano County is planning to implement an appeals process for dealing with the concerns over bio solid fertilizers. An appeals process will be established through the County’s Administrative Director of Environmental Management. If either party is not satisfied with the outcome, a further appeal may be made to the County Board of Supervisors.

SN-34 AIRPORT/LAND USE COMPATIBILITY PLAN
(Existing)

The *Airport/Land Use Compatibility Plan* sets forth the safety and noise criteria that the Solano County Airport Land Use Commission (ALUC) will use to evaluate land use plans and proposed development in the vicinity of the Rio Vista Airport. The noise evaluation criteria applied to determine airport/land use noise compatibility considers future Community Noise

Equivalent Level (CNEL) contours; these noise contours were calculated based upon aircraft activity forecasts contained in the adopted airport master plan.

The airport/land use safety compatibility criteria is used to minimize risks associated with the operation of aircraft to and from the airport; the intent of these criteria are to minimize risk to people on the ground and in the aircraft, largely through reducing density and maximizing amount of open land within the vicinity of the airport.

SN-35 **SITE DESIGN REVIEW**
(Ongoing)

The City will continue its design review of projects to determine ways in which project design may minimize risks to public safety and attenuate significant noise levels. Where noise levels exceed community noise standards for a proposed land use, one or more of the following techniques may be required to reduce the noise to acceptable levels: traffic planning, site planning, architectural layout, construction modifications, landscaped berms and, as a last resort, sound wall barriers. Each of these techniques is described briefly below.

Airport/Land Use Compatibility. The airport/land use safety compatibility criteria will be applied to site design review to ensure compatibility between the airport operations and proposed land uses within the vicinity of the airport. Application of these criteria will help to minimize risk to people on the ground and in the aircraft, largely through reducing density and maximizing the amount of open land within the vicinity of the airport.

Traffic Planning. Roadway design, traffic signalization, and other traffic planning techniques can reduce noise caused by speed or acceleration of vehicles. Limiting truck traffic to certain designated sections of the City can help to maintain acceptable noise levels in residential neighborhoods.

Site Planning. Proper site planning to reduce noise impacts is the first area that should be investigated for a given project. By taking advantage of the natural shape and contours of the site, it is often possible to arrange the buildings and other uses in a manner that will reduce and possibly eliminate noise impacts. Planned unit developments are particularly conducive to site planning techniques. Site planning techniques include:

- Increasing the distance between the noise source and the receiver.
- Placing land uses that are not sensitive to noise, such as parking lots, maintenance facilities, and utility areas, between the noise source and the receiver.
- Using structures that are not sensitive to noise, such as garages, to shield noise-sensitive areas.
- Orienting buildings to shield outdoor spaces from a noise source.

Architectural Layout. In many cases, noise reduction requirements can be met by giving attention to the layout of noise-sensitive spaces. Bedrooms, for example, will be considerably quieter if placed on the side of the house facing away from a freeway. Similarly, balconies

facing a freeway should be avoided. Quiet outdoor spaces can be provided next to a noisy highway by creating a U-shaped development that faces away from the highway. Proper architectural layout often can eliminate the need for costly construction modifications.

Noise Barriers. Noise barriers are commonly used to reduce noise levels from ground transportation and industrial noise sources. Noise barriers serve a dual purpose in that they can reduce the noise level outdoors and indoors. The City will discourage the use of sound walls as noise barriers and they will be considered a last resort for use in reducing noise levels.

To be effective, a noise barrier must be massive enough to prevent significant noise transmission through it and high enough to shield the receiver from the noise source. The minimum acceptable surface weight for a noise barrier is 4 lbs./sq. ft. (equivalent to 3/4-inch plywood), and the barrier must be carefully constructed so that there are no cracks or openings. To be effective, a barrier must interrupt the line-of-sight between the noise source and the receiver. As an example of this relationship, consider a flat area with a housing tract next to a road. If there are no diesel trucks on the road, a 7-foot high barrier will reduce the traffic noise by about 8 dBA. If trucks are present, the noise from the trucks will be reduced only by about 4 dBA. Because the stacks of the diesel trucks exceed the height of the barrier, the noise path will not be completely interrupted.

Another important and often overlooked consideration in the design of noise barriers is the phenomenon of “flanking.” Flanking is a term used to describe the manner by which a noise barrier’s performance is compromised by noise passing around the end of a barrier. Short barriers, regardless of height, provide essentially no reduction in the overall noise level. The effects of flanking can be minimized by bending the wall back from the noise source at the ends of the barrier.

In addition to meeting acoustical requirements, noise barriers must be evaluated for possible maintenance problems, aesthetic and environmental considerations, safety conflicts, and cost.

Construction Modifications. If site planning, architectural layout or noise barriers—or a combination of these measures—do not achieve the required noise reduction for the building in question, modifying the building’s construction may be required. Indoor noise levels due to exterior sources are controlled by the noise reduction characteristics of the building shell. The walls, roof, ceilings, doors, windows, and other penetrations determine the structure’s overall noise reduction capabilities.

In general, windows and doors are the acoustical weak links in a building. Often, all that is required is sealing the windows on the noisy side of the building and providing an alternate means of ventilating the building. Beyond this measure, thicker windows or double-glazed windows may be required. Doors should not be located on the side of the building facing a noisy source. If doors are oriented to a noisy source, they should be solid-core and equipped with an appropriate acoustical door gasket.

Where more noise reduction is required, the ceiling, roof, or walls may need to be modified to provide the reduction. The extent of modification will depend on the amount of noise reduction required.

The Noise Exposure Contours and the California Noise Insulation Standards. The California Noise Insulation Standards (Title 25 of the California Government Code) for multi-family dwellings require an acoustical report for dwellings proposed in areas where the Ldn exceeds 60 dBA. The purpose of the acoustical report is to demonstrate the manner by which the development will meet the standards for interior noise levels. If noise measurements show that the on-site Ldn exceeds 60 dBA, an acoustical report will be required.

SN-36 **NOISE PERFORMANCE STANDARDS**
(To be adopted as part of this General Plan)

The City shall apply the Noise Performance Standards shown in *Tables 11-1 and 11-2* of the Safety & Noise element to the review of new development of noise-sensitive uses exposed to existing fixed noise sources. These standards will also be used to evaluate the potential impacts of proposed new fixed noise sources in proximity to noise-sensitive land uses. Where a noise sensitive land use is proposed near a fixed noise source such as the PG&E main compressor facility near Vineyard Bluffs, an industrial facility or the airport, noise measurements will be performed to determine whether existing and/or future noise levels from that source will exceed the City's Noise Performance Standards at the property line of the proposed use. Similarly where a fixed noise-producing use such as an industrial facility is proposed near an existing or future noise-sensitive use, a noise analysis will be prepared to ensure that the noise produced by that use will not exceed the Noise Performance Standards at the property line of the noise-sensitive use.

The acoustical analysis shall be the responsibility of the project applicant. The analysis, that is to be prepared by a qualified acoustical consultant, shall include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources; the report shall estimate existing and projected noise levels in terms of Ldn or CNEL and/or the Noise Performance Standards and shall recommend appropriate mitigation to achieve compliance with the goals and policies of the Safety & Noise element.

SN-37 **NOISE LEVEL CONTOUR MAPS**
(To be adopted as part of this General Plan)

To generally evaluate the potential for noise conflicts associated with new developments and projects, the City will refer to the General Plan Noise Level Contour Maps (*refer to Figures 11-3 and 11-4*). The maps show generalized locations of noise contours associated with the various noise sources. The contour maps can be used as a tool to evaluate the potential for exposure of a noise-sensitive land use to noise levels that may exceed the City's noise standards. Because local topography, vegetation, or intervening structures may significantly affect noise exposures at a particular location, the noise contours should be considered generalized and not site-specific.

SN-38 **MAJOR INVESTMENT STUDY AND PROJECT STUDY REPORT EQUIVALENT**
(Existing)

The *Major Investment Study (MIS) and Project Study Report (PSR) Equivalent for State Route 12* (Korve Engineering, 2001) was prepared to identify the physical improvements and

management practices necessary to appropriately serve future travel demand. Current and projected traffic operations along the study corridor (Highway 12 between Interstate 80 and the Rio Vista Bridge) were evaluated through the calculation of levels of service, including four roadway segments and three intersections in the Rio Vista city limits. Future-year projections in this report focused on the near-term traffic levels (2010) rather than the buildout scenario addressed in this General Plan update.

SN-39 ZONING ORDINANCE (SECTION 513) REVIEW AND UPDATE
(Proposed)

The City will review and update Section 513 of the Zoning Ordinance (Noise Regulation) to ensure compliance with the goals, policies and standards contained in the Safety & Noise element. Particular areas of change will include noise performance standards for gas well operations (i.e., compressors) in residential neighborhoods and mobile or short duration types of noise emissions, or noise generated by added equipment that does not require zoning approval or a building permit. Types of problems covered by such provisions include on-site vehicular operations, such as truck loading and unloading; operation of construction equipment; and amplified music. Such noise abatement provisions generally would be enforced on a complaint basis.

Because it is possible that a gas well site could be located less than 200 feet from a residence (the “clear zone” is a 150-foot radius from the center of the site), Section 513 of the Zoning Ordinance is not adequate. Further, gas well compressors may operate 24 hours per day, on a continual basis. For the purpose of outdoor residential or recreational activities, the sensitivity to constant noise is greater (lower tolerance level) than for individual noise events (such as automobiles and aircraft). Therefore, the City will update the Zoning Ordinance to modify the noise performance standard to 45 dBA (maximum) at the residential property line – this is 10 dB higher than interior levels, which reflects an expectation of some outdoor noise.

These noise standards will be administered as a part of the regular zoning and building permit application process. The applicant will be responsible for ensuring compliance with the standards.

SN-40 HYDROCARBONS ORDINANCE REVIEW AND UPDATE
(Proposed)

The City’s Hydrocarbons Ordinance (Ordinance No. 476 of the Rio Vista Municipal Code) was established to: (1) promote the economic recovery of natural gas in a manner compatible with surrounding land uses; and (2) protect the public health and safety by establishing reasonable limitations, safeguards, and controls on gas exploration, drilling, and production and transportation of natural gas resources.

The ordinance will be reviewed and amended to: (1) reflect the City’s 45-dBA (maximum) noise performance standard for gas well operations (i.e., compressors) near residential development; (2) require that muffler systems be installed on compressors operated by internal combustion engines if the sound from the compressor measures 60 dBA or more immediately outside any non-industrial building used for human occupancy and located at a distance of 150 feet or more from the compressor; and (3) ensure the adequacy of standards for noise, location, operations,

and bonding provisions to implement the policies of the updated Rio Vista General Plan. The Hydrocarbons Ordinance provides performance standards to supplement those found in Section 513 of the Zoning Ordinance (Noise Ordinance) as mitigation for noise generated from natural gas pipeline compression.

The Hydrocarbons Ordinance also will be amended to enforce the implementation of adequate mitigation to guarantee public safety. The ordinance shall require that the City receive assurances from the gas companies that all gas well sites, compressor sites, that dehydration units will be checked on a daily basis by operators, and that data for gas operations will be recorded; operators shall be required to be trained to identify potential problems and report any negative findings to the appropriate personnel immediately and to the City, as deemed appropriate, so that proper response can be initiated.

SN-41 **CALIFORNIA VEHICLE CODE**
(Existing)

The City will continue to enforce the California Vehicle Code sections relating to adequate mufflers and modified exhaust systems.