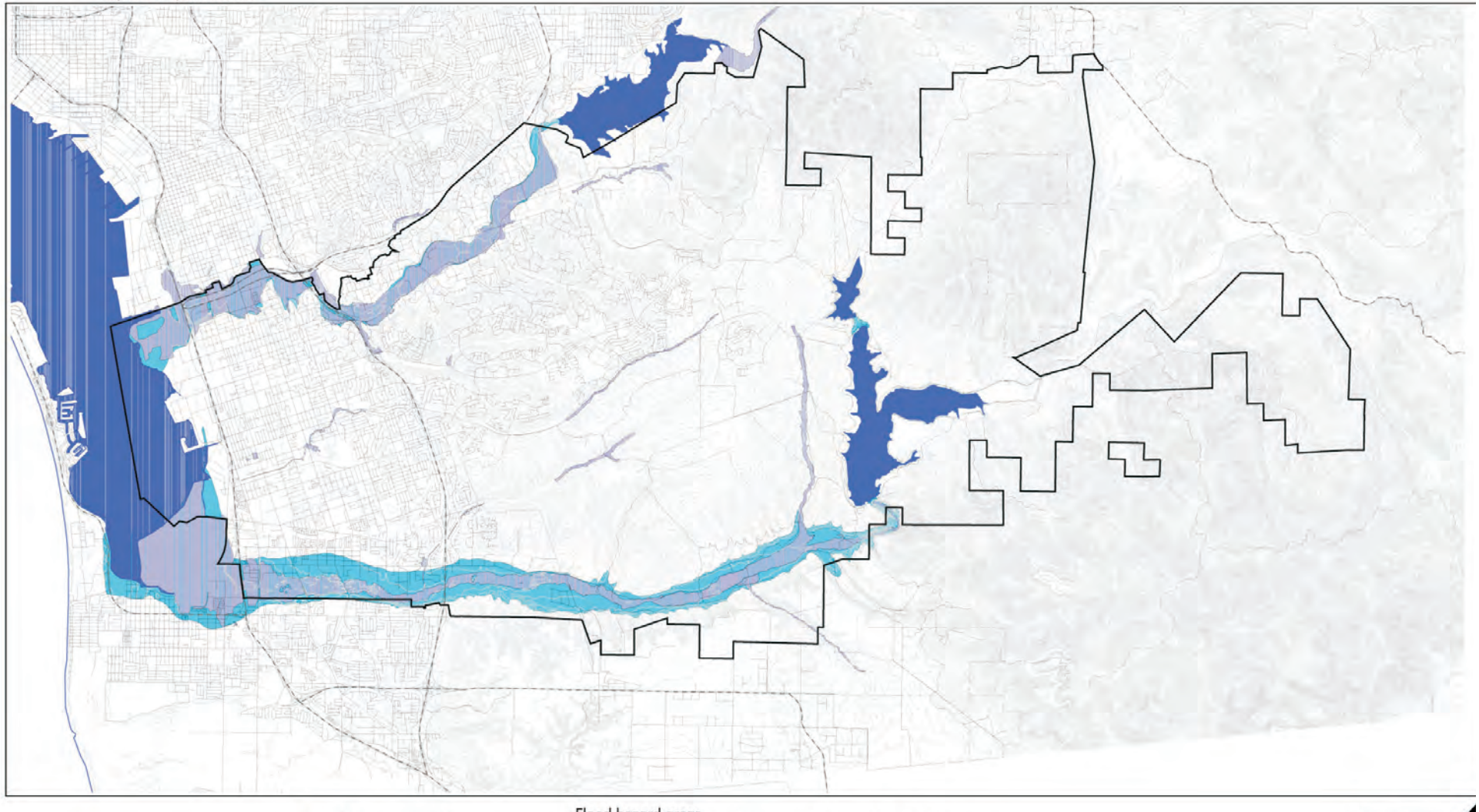
Flood and Dam Inundation Hazards Map

Map Source: Ninyo & Moore, 2003



General Plan Area

Water bodies

Flood hazard areas

Areas potentially subject to hazards associated with flooding as defined by the Federal Emergency Management Act (FEMA) Flood Insurance maps (1997) as Special Flood Hazard Areas (SFHA) inundated by a 100-year flood.

Dam inundation areas

Potential zones of unundation due to failure of the Sweetwater Dam, Upper Otay Dam, and Savage Dam as presented in maps obtained from the Governor's Office of Emergeny Services website.

0 Feet 6000 N

RECON

M:\JOBS2\3776\env\graphics\GPU_EIR\
fig5.9-2.ai 08/27/04

Figure 9-8

CITY OF CHULA VISTA

3.3.3 Identifying and Limiting Wildland Fire Hazards

Wildland fire risk zones are areas that have steep slopes, limited precipitation, and plenty of available fuel, or combustible plant material. Wildland fire risk zones designated by the California Department of Forestry and Fire Protection in 1999 are depicted on Figure 9-9, portions of which have subsequently been converted to urban development. Brush management is required to be undertaken in the City in areas where urban development interfaces with open space, in order to reduce fire fuel loads and reduce potential fire hazard. The City adopted the 1997 edition of the Urban-Wildland Interface Code (UWIC) as a part of the Chula Vista Municipal Code, which became effective in 1999, and subsequently adopted the 2000 edition of the UWIC in 2002. The City is currently reviewing the 2003 edition of the International Urban-Wildland Interface Code with the intent to incorporate amendments appropriate to local conditions into the City's UWIC. The purpose of the UWIC is to lessen the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to prevent structure fires from spreading to wildland fuels. The Chula Vista MSCP Subarea Plan also provides brush management guidelines for reducing potential fire hazards for existing and new communities within the City. The MSCP Subarea Plan references provisions for emergency brush management activities conducted at the discretion of the Fire Marshal.

Since Chula Vista receives limited precipitation, the potential for wildland fires represents a significant hazard within areas of the City. However, implementing appropriate techniques, consistent with the Chula Vista MSCP Subarea Plan and the City's UWIC, can reduce such hazards.

Objective - E 16

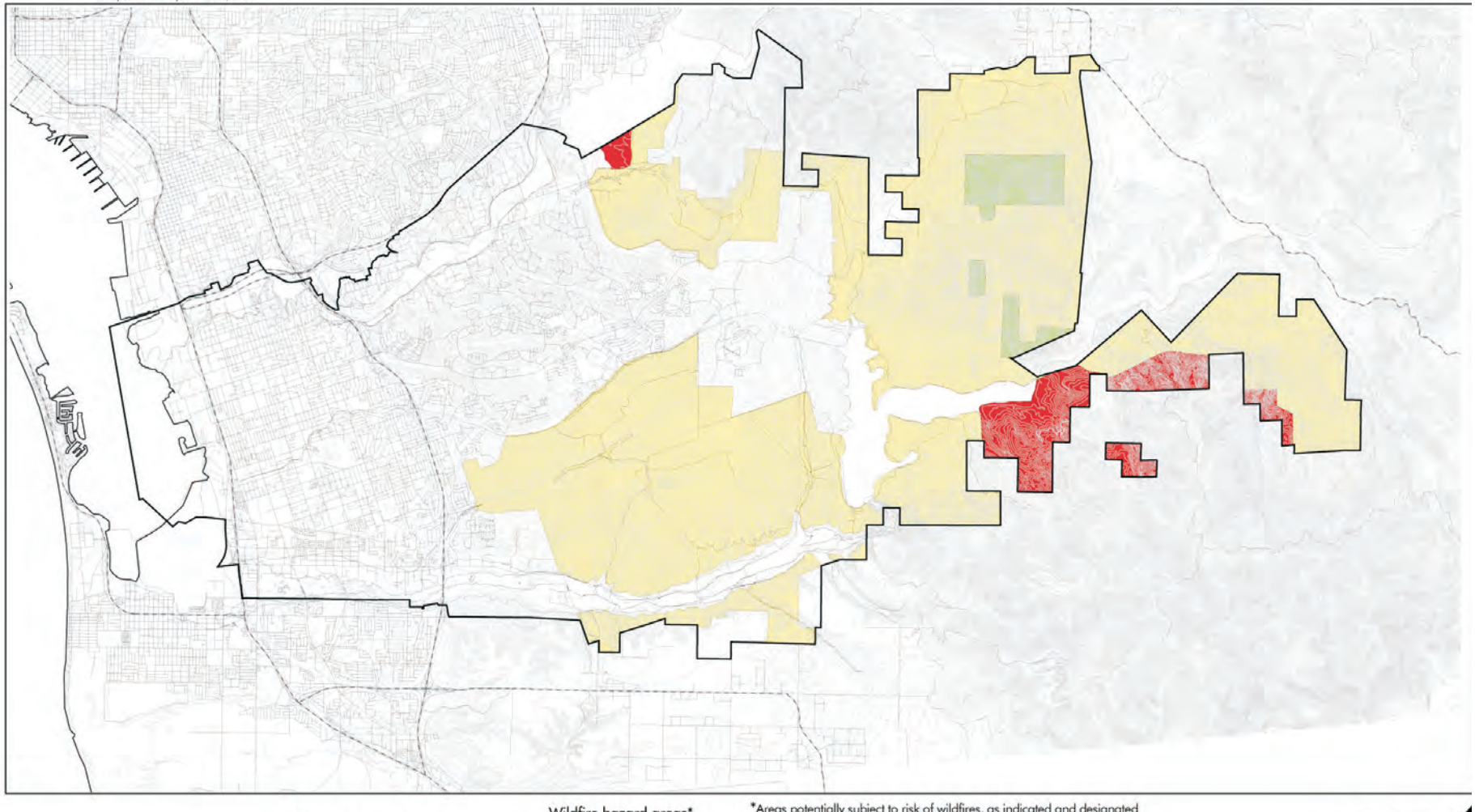
Minimize the risk of injury and property damage associated with wildland fire hazards.

Policies

E 16.1 Implement brush management programs that which are consistent with the Chula Vista MSCP Subarea Plan and the City's Urban-Wildland Interface Code, within urban development and open space interface areas in order to reduce potential wildland fire hazards. Brush management guidelines with in the MSCP Subarea Plan and the Urban-Wildland Interface Code shall include limits and measures to prevent increased risk of erosion.

Wildland Fire Hazards Map

Map Source: Ninyo & Moore, 2003



General Plan Area

Wildfire hazard areas*

*Areas potentially subject to risk of wildfires, as indicated and designated by California Department of Forestry and Fire Prevention (CDF, 1999).

Very high hazard
Very high fire hazard severity zone.

High hazard
Wildland areas that may contain substantial forest fire risks and hazards.

Undetermined hazard
Wildland areas. that may contain substantial forest fire risks and hazards, however are not under the jurisdiction of the California Department of Forestry and Fire Prevention (1999).

0 Feet 6000

RECON

M:\JOBS2\3776\env\graphics\GPU_EIR\fig5.15-11.ai 08/26/04

Figure 9-9

CITY OF CHULA VISTA

3.4 Hazardous Materials and Waste

Hazardous materials are used, transported, produced, and stored for a variety of purposes in Chula Vista. Associated with commercial, light industrial, public, and residential areas, hazardous materials have the potential to impair public health and degrade the environment. Hazardous materials may exhibit toxic, corrosive, reactive, and/or flammable characteristics. The risk posed by a particular material depends on its chemical composition, physical state, and concentration. Risk also depends on management and handling techniques, as well as the number of people exposed to the materials. Protecting the public from potential threat requires addressing these risk factors.

Regulations

Federal, state and county agencies closely regulate hazardous materials to protect public health and the environment. The U.S. Environmental Protection Agency, State of California Environmental Protection Agency and the Hazardous Materials Management Division of the County of San Diego Department of Environmental Health regulate and issue permits for the use, storage, disposal, and transport of hazardous materials. Conditions of such permits require precautionary measures to minimize potential risks.

3.4.1 Remediation of Contaminated Sites

A search of federal, state and local databases identified numerous known and potentially contaminated sites within and immediately adjacent to Chula Vista. The majority of these sites are located in older industrial and commercial areas west of Interstate 805 and along Main Street east of Interstate 805. Known and potentially contaminated sites within Chula Vista are primarily associated with unauthorized releases of oil and hazardous substances (e.g., leaking underground storage tanks); former solid and hazardous waste disposal and transfer sites; use, storage, and transport of hazardous materials; and hazardous waste generation.

Future redevelopment of contaminated sites could be impaired unless adequate remediation of such sites occurs. Redevelopment proposals will continue to be reviewed by the City to determine the presence and extent of contamination affecting redevelopment project sites. Remediation of contaminated sites will continue to be required of developers, as necessary, to protect public health and safety, in accordance with the recommendations of appropriate environmental assessments and consistent with all applicable regulations and standards.

Objective - E 17

Ensure the adequate remediation of contaminated sites as redevelopment occurs in order to protect public health and safety.

Policies

E 17.1 Clean contaminated sites to protective limits to ensure that planned future uses of such sites and public health and safety are not compromised.

E 17.2 Prior to the redevelopment of contaminated sites, ensure adequate remediation in accordance with the recommendations of appropriate environmental assessments and consistent with all applicable regulations and standards.

3.4.2 Managing Household Hazardous Waste

Household hazardous waste (HHW) generated by Chula Vista residents cannot be disposed of at the local and regional landfills serving the City and is, therefore, handled separately from non-hazardous solid waste. HHW includes: used motor oil; latex and oil based paints; used antifreeze; cleaning products; aerosol containers; dry cell and automotive batteries; pesticides and garden chemicals; and solvents. Chula Vista's HHW efforts are designed to provide a means to safely collect, recycle, treat, and dispose of HHW. Chula Vista's current HHW program, initiated in 1997, includes a temporary storage facility located at the City's John Lippitt Public Works Center on Maxwell Road. This facility was designed as a regional facility to accommodate waste from the South Bay area, including areas outside the City limits. The majority of the HHW collected at the City's facility is reused or recycled and is, thus, diverted from landfill disposal. HHW is sent to various locations throughout the United States for treatment and/or recycling. In addition to the City's HHW facility,

the City provides free curbside used motor oil and oil filter collection through its solid waste collection franchisee. Source reduction, a form of diversion, is promoted through public education on alternatives to toxic products. The City plans to expand its HHW program to include conditionally exempt, small-quantity generators, such as small group painters and very small-scale mobile automobile mechanics.

In the absence of convenient and affordable HHW collection facilities and sufficient public education, the extent of improper HHW disposal would likely be great. The adverse impacts of improper HHW disposal to the environment and to public health and safety warrant significant efforts to facilitate proper disposal. Public education on alternatives to toxic products can yield a reduction of HHW sources and, in turn, a reduction in HHW generation; therefore, such efforts are also warranted.

Objective - E 18

Minimize the use of toxic products by residents and small businesses and facilitate the proper disposal of household hazardous waste.

Policies

E 18.1 Provide convenient and affordable household hazardous waste collection facilities and services for residents and small businesses, including City facilities, community collection events, and curbside collection.

E 18.2 Minimize the use of toxic products by residents and small businesses through public education on alternative products and methods.

3.4.3 Siting Hazardous Waste Facilities

Products as diverse as gasoline; paint; solvents; film-processing chemicals; household cleaning products; refrigerants; and radioactive substances are categorized as hazardous materials. After use, or processing, hazardous materials that remain are considered hazardous waste. Nearly all industry and businesses in Chula Vista generate some amount of hazardous waste. Hazardous waste is of concern in light of potential adverse public health and safety and environmental impacts that can result from the improper handling and disposal of such materials. Therefore, the appropriate siting of hazardous waste storage, collection, treatment, disposal and transfer facilities

is important. Also important is the siting of such facilities in relatively close proximity to generation sources in order to facilitate proper and efficient disposal of hazardous waste and to reduce the transport of hazardous waste within the City.

State law requires the mapping of "general areas" within which hazardous waste facilities might be established. Proposed hazardous waste facilities will be considered only if they are within the industrial zoned general areas shown on Figure 9-10 and meet specific siting, design, and operating criteria as, defined in Policy E 19.1 below, as established by the Chula Vista Zoning Code, and pursuant to siting criteria guidelines established by the City.

Objective - E 19

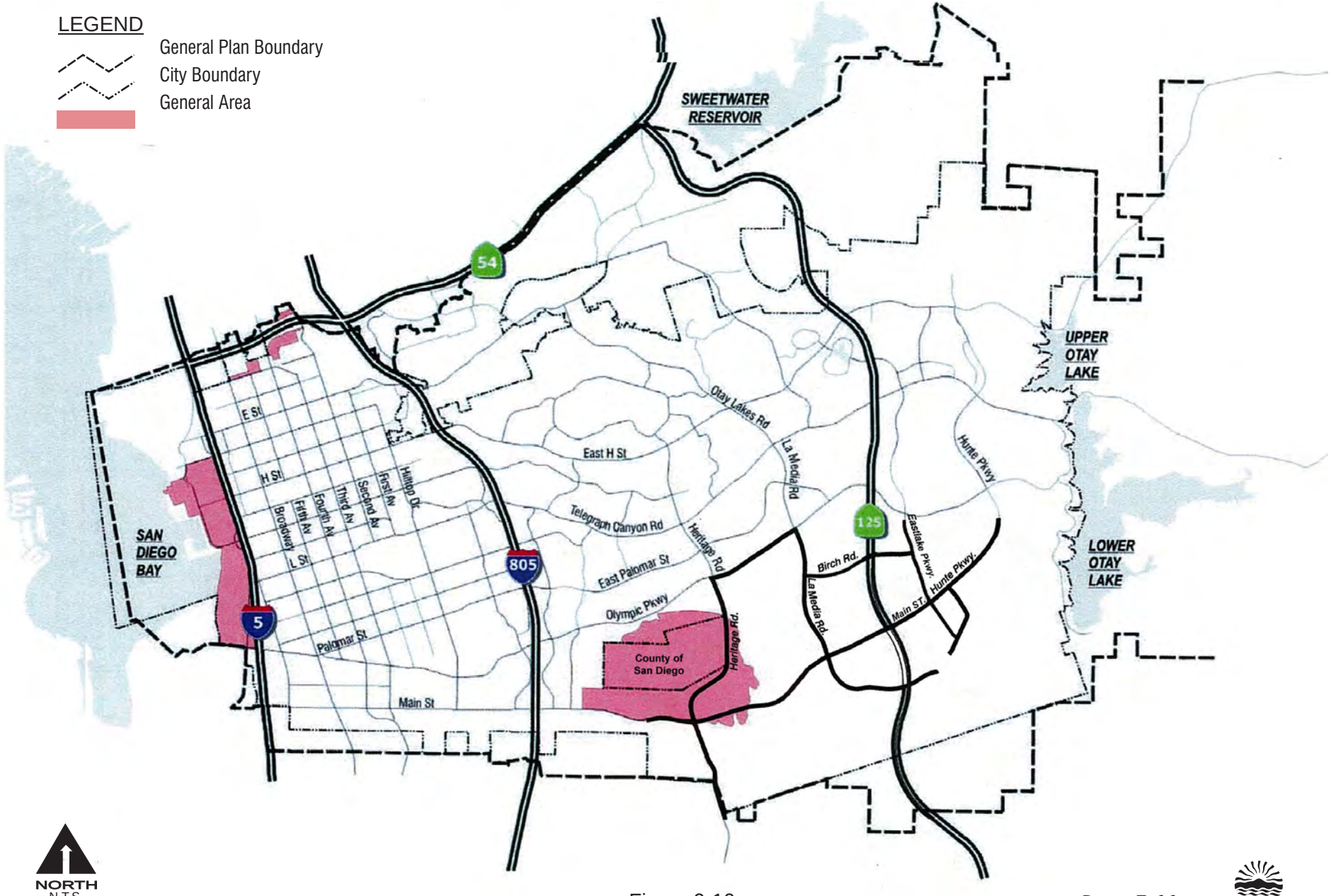
Maintain the ability to establish hazardous waste storage, collection, treatment, disposal, and transfer facilities to serve the needs of Chula Vista industry and businesses within appropriate locations of the City, while ensuring adequate protection of the community.

Policies

E 19.1 Proposals for hazardous waste storage, collection, treatment, disposal, and transfer facilities shall be accepted for review, only if located on industrial-zoned land within a designated general area, as shown on Figure 9-10. The proposal shall be reviewed, based upon the following criteria:

- The application shall include risk assessments, environmental reviews, and other reports necessary to determine project impacts on the environment.
- A health risk assessment, as described in the Chula Vista Zoning Code, shall be prepared under the direction of the City, the Local Assessment Committee (LAC) and any Ad Hoc Technical Committees that may be created to advise the City and the LAC on such matters.
- All facilities shall be a minimum of 1,000 feet from any residential zone; residence; school; hospital; hotel; motel; or other similar land use.
- Setback or buffer areas shall be precluded from future residential uses through property restrictions, such as easements or covenants, and, where appropriate, through zoning.

General Areas Map



NORTH
N.T.S.

Figure 9-10

CITY OF CHULA VISTA

- Special design features and/or on-site emergency services may be required where deemed necessary to facilitate the adequate handling of hazardous materials accidents.

- A traffic/transportation study shall be prepared as part of the environmental analysis and health risk assessment. The study shall address the proximity of the proposed facility to areas of waste generation; the distance along minor and major routes from areas of waste generation to the proposed facility, and from the proposed facility to the freeway; the number and types of residences, schools, hospitals and shopping centers fronting the affected minor and major routes; and the highway accident rate, as determined by the California Department of Transportation, along highways identified as part of the transportation route.

E 19.2 Establish hazardous waste facility siting criteria guidelines that will ensure adequate protection of the community, to be utilized in the evaluation of hazardous waste Facilities proposed within the general areas established by the City.

3.4.4 Siting and Managing Facilities That Use, Store, and Handle Hazardous Materials and Waste

The use, storage, and handling of hazardous materials and waste within Chula Vista are rigorously controlled by federal, state, and local regulations. The City uses a variety of tools to regulate facilities that use, store, and handle hazardous materials and waste in order to ensure compatibility with existing and planned surrounding land uses. The primary tools utilized by the City are zoning regulations, environmental review of proposed developments in accordance with the California Environmental Quality Act, and the issuance of business licenses.

As development and redevelopment in Chula Vista continues, the potential exists for facilities that use, store, and handle hazardous materials and waste to be sited in locations where such activities may be incompatible with existing and planned surrounding land uses. Through the use of appropriate tools, the City will ensure that facilities using, storing, and handling hazardous materials and waste will be appropriately sited and that the operation of such facilities will be regulated such that significant adverse effects to surrounding land uses will be avoided.

Objective - E 20

Ensure that facilities using, storing, and handling hazardous materials and waste do not result in significant adverse effects to existing and planned surrounding land uses.

Policies

E 20.1 On a periodic basis, review and modify, where necessary, the City's zoning regulations to ensure that adequate provisions are in place to avoid adverse effects to surrounding land uses from facilities using, storing, and handling hazardous materials and waste.

E 20.2 Through the environmental review of proposed developments, in accordance with the California Environmental Quality Act, the City shall ensure that significant and potentially significant adverse effects from facilities using, storing, and handling hazardous materials and waste to existing and planned surrounding land uses will be avoided.

E 20.3 Prior to the issuance or renewal of business licenses for businesses involving hazardous materials and/or generating hazardous waste, the City shall continue to require licensees to prepare and submit an acceptable Business Plan and Risk Management Prevention Program to the County Department of Environmental Health, as applicable, and to obtain all other necessary licenses and permits.

3.5 Noise

3.5.1 Protecting People from Excessive Noise

Noise Conditions in Chula Vista

Urbanization in Chula Vista has resulted in a steady increase in noise levels throughout the area. Many sources contribute to the noise levels experienced within Chula Vista, including: vehicular traffic; active commercial and business centers; air conditioning systems; and the operation of landscape equipment. In Chula Vista, the most prevalent noise source is vehicular traffic. Traffic noise is greatest around freeways. Other noise sources include the San Diego Trolley, operated during daytime and evening hours, and freight service intermittently operated on the same rail lines at night when the trolley is not in service. Coors Amphitheater and industrial operations, such as the Otay Landfill, the South Bay Power Plant and the Chula Vista Generating Station, also generate noise. Finally, activities associated with various commercial activities and operations generate noise throughout the City.

To establish the compatibility of various land uses with exterior noise levels, the City uses Community Noise Equivalent Level, or CNEL, in its planning guidelines.

Noise levels can be estimated and represented as noise contour lines, which indicate the area subject to a particular noise level. Figures 9-11 and 9-12 show the estimated existing and projected future noise contours in Chula Vista, based on recent traffic volume counts and projected 2030 traffic volumes. In general, noise levels are projected to increase, due to the construction of new roads and increasing traffic volumes throughout the City and the region. Figure 9-13 shows Brown Field year 2000 aircraft-produced noise contours, as contained in the adopted 1981 Brown Field Comprehensive Land Use Plan (CLUP). Although the Brown Field Airport Influence Area extends into the General Plan area and into the City, the existing and planned land uses within this area are compatible with the land use noise compatibility guidelines contained in Table 9-1 and with the adopted Brown Field CLUP.

Noise Planning and Standards

Land uses that generate significant noise should be separated from uses that are particularly sensitive to noise. Noise sensitive land uses consist primarily of residences, but also include schools; hospitals; libraries; parks; and places of worship. To establish the compatibility of various land uses with exterior noise levels, the City uses Community Noise Equivalent Level, or CNEL, in its planning guidelines. CNEL takes into account the heightened sensitivity of persons to noise during evening and nighttime periods.

TABLE 9-2
EXTERIOR LAND USE/NOISE COMPATIBILITY GUIDELINES

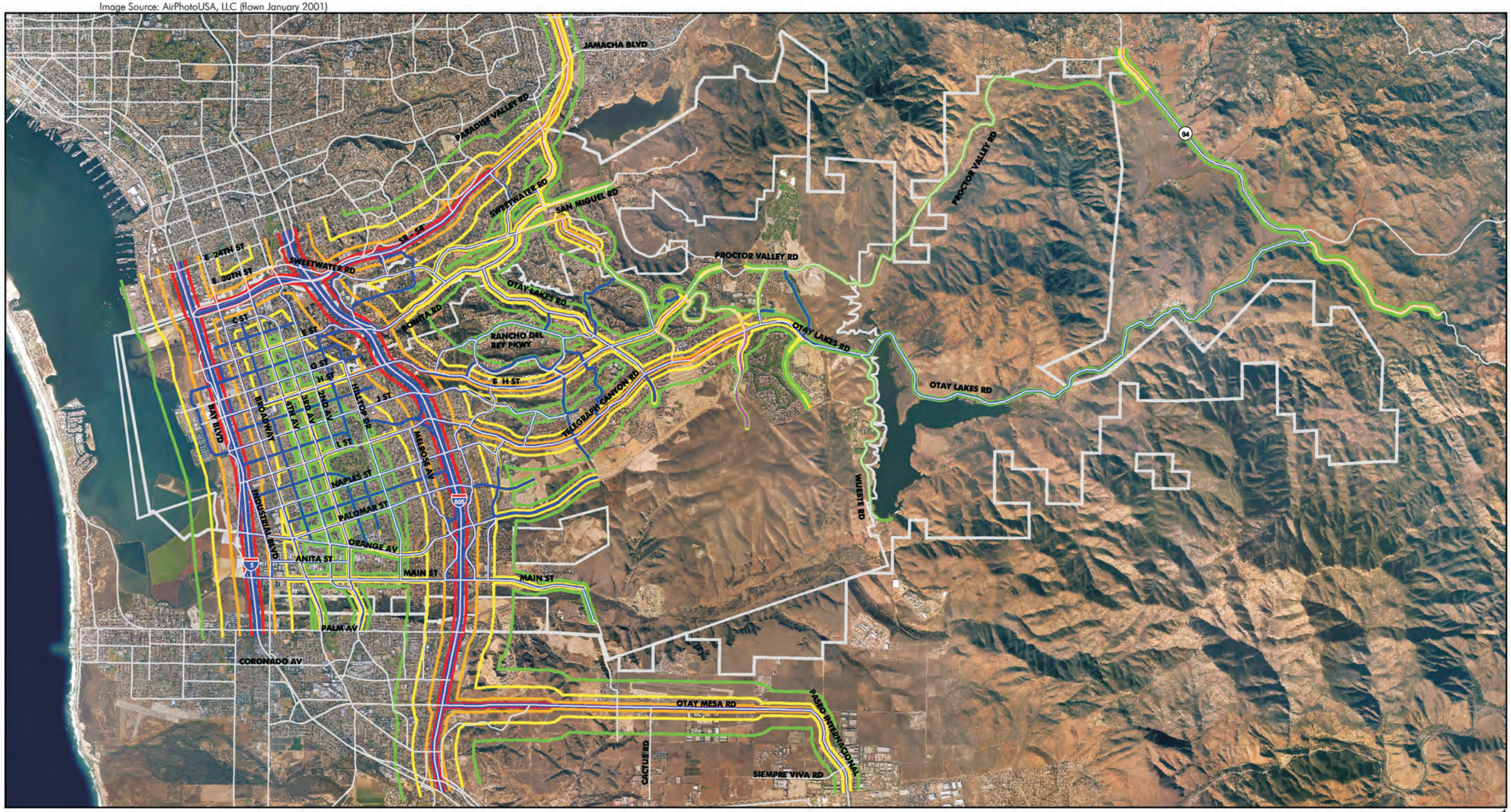
	Annual CNEL in Decibels					
Land Use	50	55	60	65	70	75
Residential						
Schools, Libraries, Daycare Facilities, Convalescent Homes, Outdoor Use Areas, and Other Similar Uses Considered Noise Sensitive						
Neighborhood Parks, Playgrounds						
Community Parks, Athletic Fields						
Offices and Professional						
Places of Worship (excluding outdoor use areas)						
Golf Courses						
Retail and Wholesale Commercial, Restaurants, Movie Theaters						
Industrial, Manufacturing						

Table 9-2 illustrates Chula Vista's exterior land use-noise compatibility guidelines. These guidelines reflect the levels of noise exposure that are generally considered to be compatible with various types of land uses. These guidelines are to be used at the land use planning stage, for noise impact assessments, and to determine mitigation requirements for development proposals.

The noise control ordinance of the Chula Vista Municipal Code establishes noise level limits for individual generators. Noise level limits vary, based upon the type of receiving land use(s) and time of day. In addition to regulating noise generators, the noise control ordinance limits are used in noise impact assessments to determine mitigation requirements for proposed generators of noise to ensure that they will not adversely impact surrounding land uses. Conversely, the

Existing Noise Contour Map

Image Source: AirPhotoUSA, LLC (flown January 2001)



Chula Vista General Plan area
Chula Vista municipal boundary
Circulation Element Roadways

Traffic Noise Contours (dBA)
60
65
70
75
80
85

0 Mile 1.4 N

Figure 9-11

CITY OF CHULA VISTA

BLANK

Projected 2030 Noise Contour Map

Image source: Natural color representation of the NAIP 2009 aerial imagery.

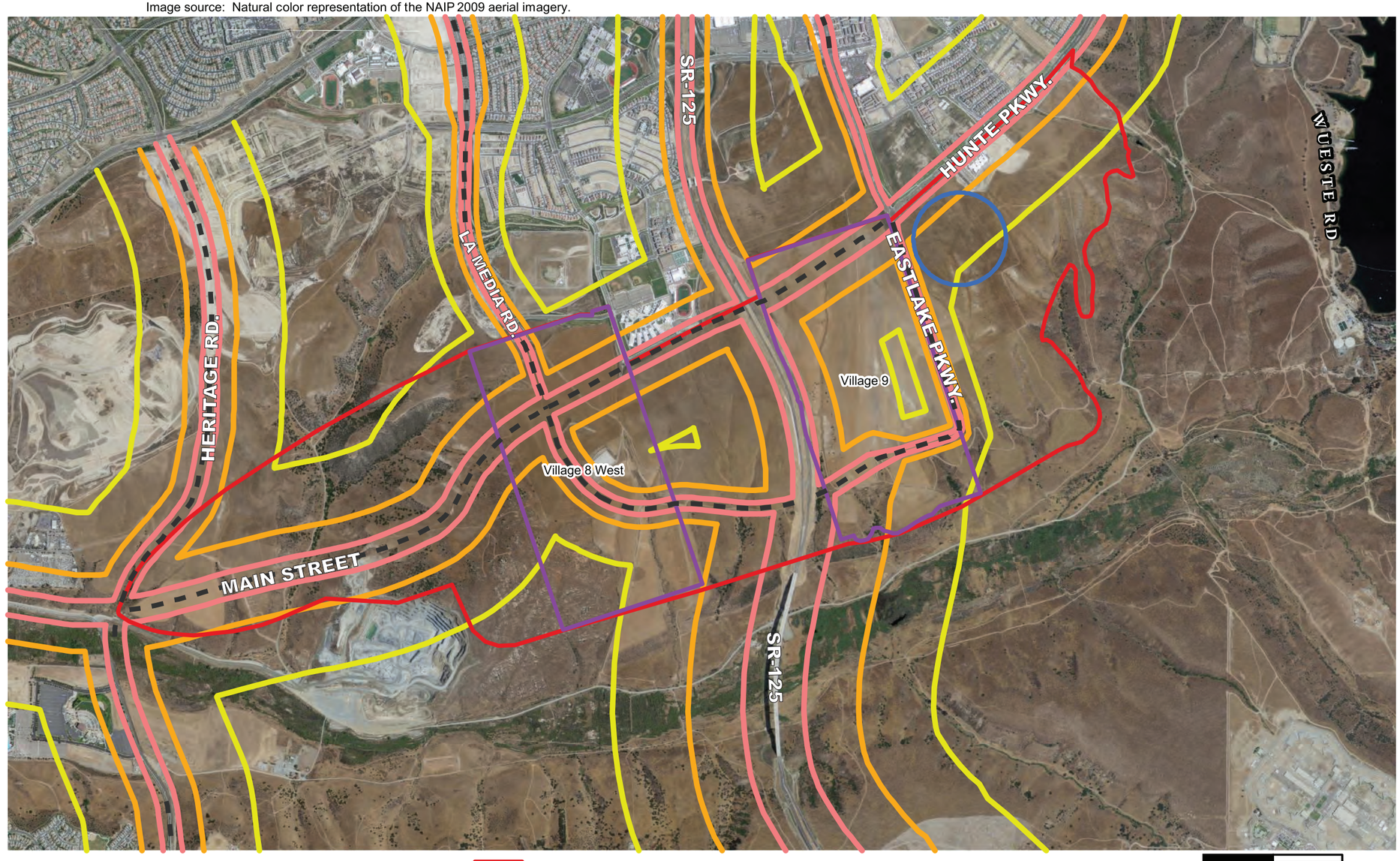
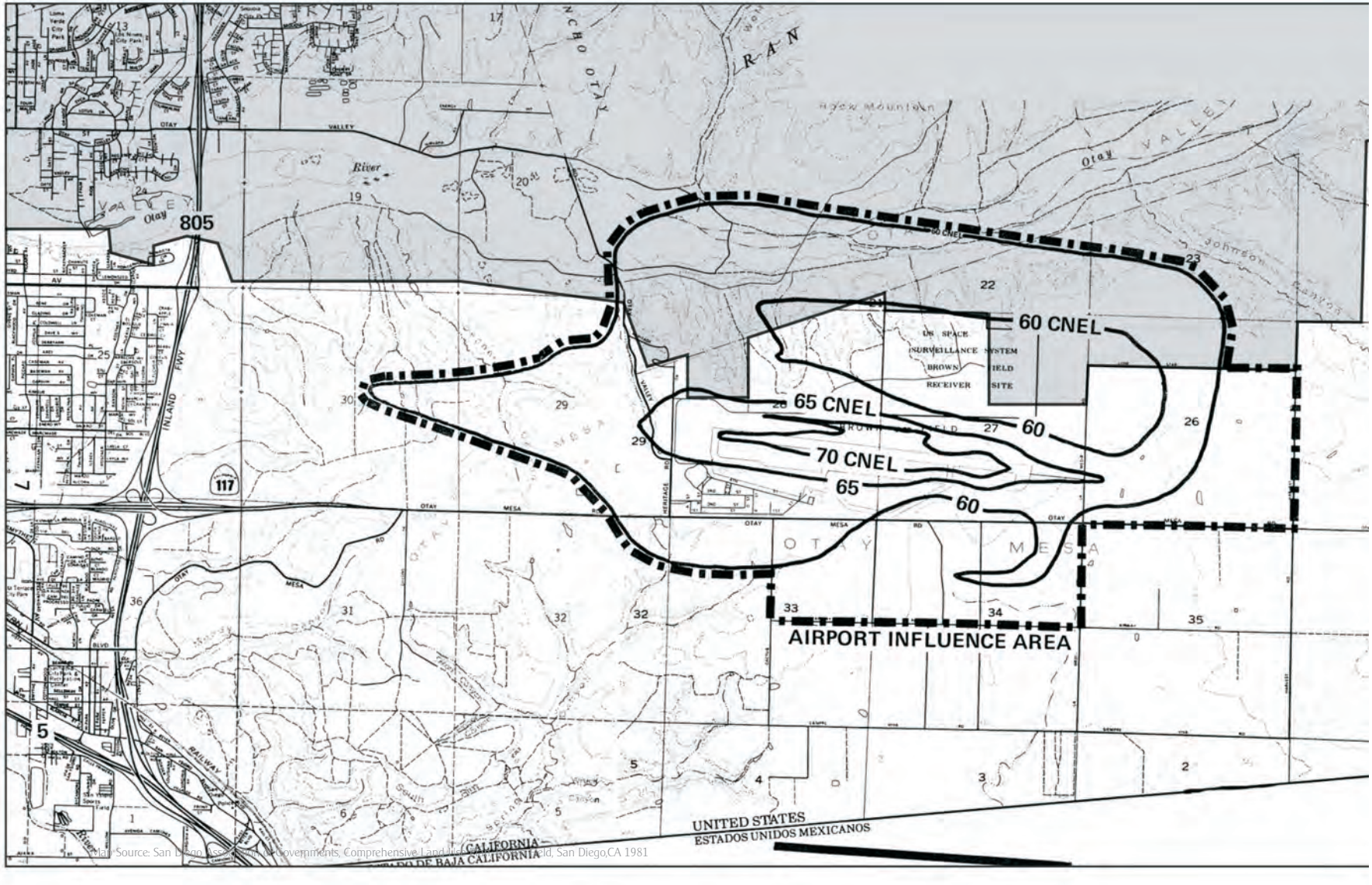


Figure 9-12

BLANK

Brown Field Year 2000 Noise Contour Map

Projected Aircraft-Produced Community Noise Equivalent Level
(CNEL) Contours



Chula Vista General Plan Area

Figure 9-13

CITY OF CHULA VISTA

guidelines listed in Table 9-2 reflect the total noise exposure, including vehicular traffic noise levels that are not regulated by the noise control ordinance, that is compatible with a particular land use. Because the noise control ordinance serves a purpose that is distinct from the guidelines within in Table 9-2, the noise control ordinance and the guidelines in Table 9-2 neither conflict with nor contradict one another.

Various types of land uses can be adversely affected by excessive noise. The level of noise exposure that is generally considered compatible varies by land use type, as illustrated in Table 9-2. However, the character (e.g., urban versus suburban) of the area where a particular land use is proposed to be located and/or the nature of the noise that a particular land use would be exposed to can affect this relationship. Therefore, the guidelines listed in Table 9-2 are intended to be considered and applied in light of project-specific considerations.

Objective - E 21

Protect people from excessive noise through careful land use planning and the incorporation of appropriate mitigation techniques.

Policies

E 21.1 Apply the exterior land use-noise compatibility guidelines listed in Table 9-2 of this Environmental Element to new development, where applicable, and in light of project-specific considerations.

E 21.2 Where applicable, the assessment and mitigation of interior noise levels shall adhere to the applicable requirements of the California Building Code with local amendments and other applicable established City standards.

E 21.3 Promote the use of available technologies in building construction to improve noise attenuation capacities.

E 21.4 Continue to implement and enforce the City's noise control ordinance.

3.5.2 Minimizing Transportation Noise

Vehicular traffic noise associated with a given roadway is a factor of traffic volume, the types of vehicles utilizing the roadway, and the speeds at which they travel. As traffic volumes increase or decrease, noise increases or decreases. Heavy vehicles and trucks produce significantly more noise than automobiles. Noise produced on a roadway is directly proportional to traffic speed. Therefore, lower traffic speeds and traffic calming devices (e.g., narrow roadways, on-street parking in commercial and mixed use districts) result in a commensurate decrease in noise levels.

The electric-powered San Diego Trolley presently extends through Chula Vista parallel to Interstate 5. With the exception of warning horns and audible crossing gates, electric-powered trolleys are relatively quiet. While the intermittent nature of trolley operations does not significantly increase daily average noise exposure, limiting at-grade crossings of roads would decrease noise levels by reducing the number of required audible crossing gates and warning signals.

Minimizing traffic noise can result from reductions in traffic volume, decreases in the number of trucks and heavy vehicles on a roadway, and decreasing traffic speeds. Other methods of reducing and mitigating traffic noise levels are associated with changes in roadway material and the construction of barriers between roadways and adjacent land uses. Dense or open graded asphalt road surfaces produce less source noise than does Portland concrete cement. The greatest noise reduction attributable to roadway surface has been achieved through the use of rubberized asphalt. Barriers reduce noise exposure by interrupting the line of sight from the noise source to the receiver. The effectiveness of a barrier is dependent upon the height of the barrier, the quality of construction, and the barrier material mass and acoustical properties.

Objective - E 22

Protect the community from the effects of transportation noise.

Policies

E 22.1 Work to stabilize traffic volumes in residential neighborhoods by limiting throughways and by facilitating the use of alternative routes around, rather than through, Neighborhoods.

E 22.2 Explore the feasibility of using new technologies to minimize traffic noise, such as use of rubberized asphalt in road surface materials.

E 22.3 Employ traffic calming measures, where appropriate, such as narrow roadways and on-street parking, in commercial and mixed use districts.

E 22.4 Encourage walking; biking; carpooling; use of public transit; and other alternative modes of transportation to minimize vehicular use and associated traffic noise.

E 22.5 Require projects to construct appropriate mitigation measures in order to attenuate existing and projected traffic noise levels, in accordance with applicable standards, including the exterior land use/noise compatibility guidelines listed in Table 9-2 of this Environmental Element.

3.6 Environmental Justice

Environmental justice is introduced, defined and discussed in Section 1.6 of this Environmental Element. Please refer to that section, and other related sections of this document for additional background

The following objective and policies augment other parts of this General Plan that help to further, at the local level some of the comcepts and principles that have emerged regarding this topic at at the national, state, and regional levels.

Objective - E 23

Provide fair treatment for people of all races, cultures, and income levels with respect to development, adoption, implementation, and enforcement of environmental laws, regulations and policies.

Policies

E 23.1 Provide public outreach efforts and public involvement opportunities for residents affected by proposed City projects.

E 23.2 Plan for the equitable distribution of public facilities and services.

E 23.3 Do not site industrial facilities and uses that pose a significant hazard to human health and safety in proximity to schools or residential dwellings.

E 23.4 Build new schools and residential dwellings with sufficient separation and buffering from industrial facilities and uses that pose a significant hazard to human health and safety.

E 23.5 Promote more livable communities by expanding opportunities for transit-oriented development.