III. Mobility and Infrastructure




Introduction

As Escondido matures, transportation planning and infrastructure needs must respond to changing conditions. The community's quality of life depends upon accessibility and services provided to each land use. The relationship between the community's land uses, circulation system and utility infrastructure network is a vital consideration for comprehensive planning.

Ensuring good mobility to transport residents, goods and services, as well as providing reliable utilities to adequately serve the community requires that regular evaluations be conducted when new development and redevelopment occur. Efficiency, access, and safety for all modes of travel, including pedestrian, bicycling, and transit will afford residents options when trip planning and lessen dependence on single passenger automobile travel. The result will be cleaner air, a safer environment, improved economy, and higher quality of life.

The Mobility and Infrastructure Element's Purpose

The Circulation Element is one of seven mandated elements that each local government must maintain in its General Pan. The Circulation Element must include the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities. Circulation and utility improvements must also correlate with the city's Land Use and Community Form Element

The Mobility and Infrastructure Element's purpose is to identify the types, locations and extent of existing and proposed transportation and utility facilities, and to establish goals and guiding policies for implementing improvements necessary to serve existing and future residents. The element introduces planning tools essential for achieving the community's transportation and utility goals and policies with the intent of providing a sustainable system to serve residents and businesses.

Figure III-1

GENERAL PLAN

QUALITY OF LIFE STANDARD #1

(Part 1 of 2)
TRAFFIC AND TRANSPORTATION

Circulation Element streets and intersections shall be planned and developed to achieve a minimum level of service "C" defined by the Highway Capacity Manual as amended or updated, or such other national standard deemed appropriate by the city. Level of service "C" may not be feasible in all areas at all times and level of service "D" shall be considered the threshold for determining significant impacts and appropriate mitigation. Due to physical design characteristics, implementation of pedestrian-oriented 'smart growth' and Complete Streets design improvements, high density infill areas, environmental resource considerations, existing development, freeway interchange impacts, and incomplete system improvements, alternative levels of service may be appropriate for isolated areas as determined by the city.

Where existing street or intersection capacities are below level of service "C," street, operational or Transportation System Management improvements shall be required or planned to improve the service level to "C" whenever feasible based upon impacts of future development. Such requirements or plans may be incremental to accommodate future development or the recycling of existing development. Feasibility of level of service "C" shall be based on impacts upon existing development or environmental constraints along street segments or intersections.

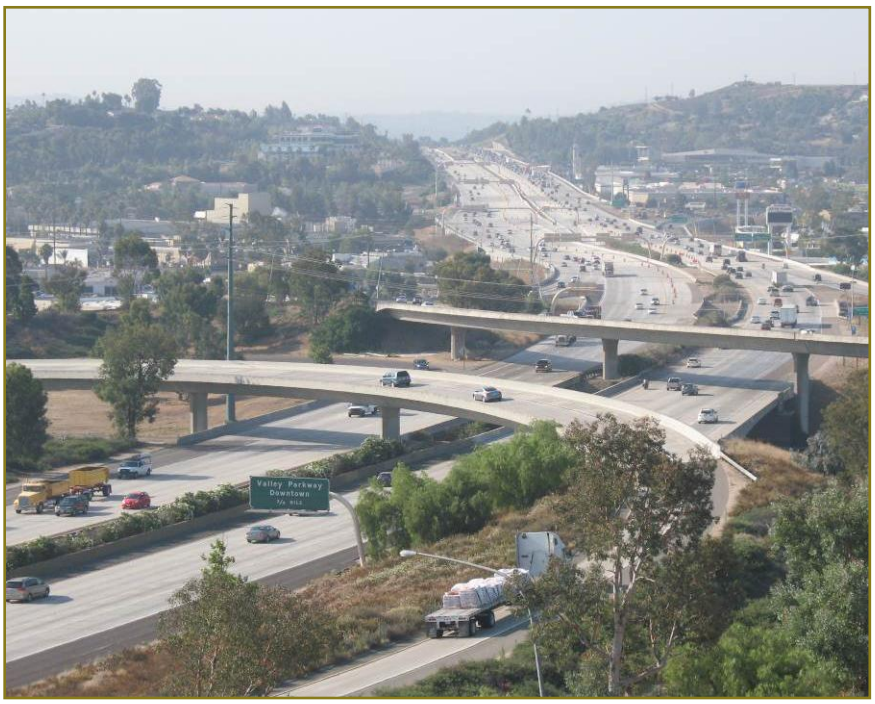
Escondido's Rapid Bus service departing from the Westfield Shoppingtown Station

A. Relationship to Other Elements in the General Plan

The Mobility and Infrastructure Element is most closely related to the Land Use and Community Form Element due to the inherent two-way relationship between land use and transportation. Escondido's mobility and infrastructure systems do not function independently; they are an integral part of the city's land use planning. They also function as a link in the regional system. The circulation system strongly influences how, where, and what type of development will occur. Land use patterns directly affect the demand for transportation facilities and utilities. Intensive land uses generate more traffic, requiring greater degrees of accessibility and higher levels of utility service. Conversely, transportation facilities and utility infrastructure, existing or proposed, influence the use of land adjacent to these facilities.

The location of residential, commercial, and industrial uses can influence how a road will function along with its design, condition, maintenance requirements, and community character. Existing and proposed development areas must be considered when making future road and utility programming decisions. In turn, future development patterns should not adversely affect the circulation and utility systems. It is necessary to follow appropriate design standards and improve existing roads and utilities in order to manage the infrastructure networks so they will be capable of performing their intended functions.

To this end, Master Plans for larger utility systems are critical for programming future improvements and establishing standards for implementation and must relate to General Plan policies. Policies contained in this element aim to direct city efforts to promote integration of the mobility and infrastructure systems with land use policies and regional transportation and utility system plans.



B. Regional Transportation Planning

Federal law requires that all regional transportation planning agencies prepare and adopt a Regional Transportation Plan (RTP) establishing the region's priorities for funding transportation infrastructure projects and programs. As the region's governmental agency, The San Diego Association of Governments (SANDAG) collaborates with Escondido and member agencies to achieve a coordinated and balanced RTP that considers all transportation systems, as well as their users and associated facilities and services including, but not limited to: mass transit, highways, railroads, bicycle, walking, goods movement, maritime, and aviation.

The RTP is meant to be action-oriented, practical, and flexible and to consider both short-term and long-term issues with clear, concise policy guidance to local and state officials, which is updated every four years. Federal guidelines also recommend identifying both the unconstrained and revenue constrained financial resources necessary to accelerate programming to retrofit existing roads with safe and convenient multimodal transportation improvements. The guidelines also encourage local jurisdictions to ensure that general plan circulation elements and local street and road standards include the necessary planning, design, construction, operations, and maintenance procedures, to support all transportation system users. Escondido's Traffic and Transportation Quality of Life Standard prescribes thresholds for the community's acceptable level of service (Figure III-1).

Figure III-1

GENERAL PLAN

QUALITY OF LIFE STANDARD #1

(Part 2 of 2)

TRAFFIC AND TRANSPORTATION

Capital improvement programs and/or facility plans shall include Transportation System Management measures designed to maintain or improve levels of service at existing or developed intersections that may be impacted by further development or traffic volume growth.

The city shall support public transportation facilities through such measures as requiring right-of-way for commuter rail or park-and-ride facilities, transit stops or facilities, or for other transportation needs. The city shall establish Transportation System Management measures and shall cooperate with agencies and coordinate with regional transportation plans and transportation agencies. Adopted San Diego Association of Governments (SANDAG) models shall be utilized to determine Quality of Life compliance.

Interstate 15 through Escondido looking south, and State Highway 78 Interchange in the foreground

Figure III-2

Complete Streets

Complete Streets Vision:

Consistently design and plan all transportation and land use projects in Escondido with all users of all ages and abilities in mind. Provide a balanced multimodal transportation network with context sensitive solutions throughout the city and promote non-vehicular facilities, walkability, active living, transit usage and Transportation Demand Management (TDM) measures in downtown & mixed use villages.

Complete Streets Features:

Complete streets involve a well maintained, comprehensive, integrated, and connected network with the following features:

- Balanced design to accommodate walking, cycling, transit, driving, parking, and deliveries;
- Variety of uses and activities that create a varied streetscape;
- Design that relates well to the street's bordering uses and allows for continuous activity;
- Pedestrian and biking facilities that promote safety and maximize access to bordering uses;
- Aesthetically designed street lights that provide sufficient illumination of sidewalks;
- Consistent landscaping that includes street trees for shade, landscaped medians and sidewalks;
- Sustainable design that minimizes runoff, minimizes heat island effects, and climatic demands and conserves scarce resources; and,
- Well-maintained facilities.

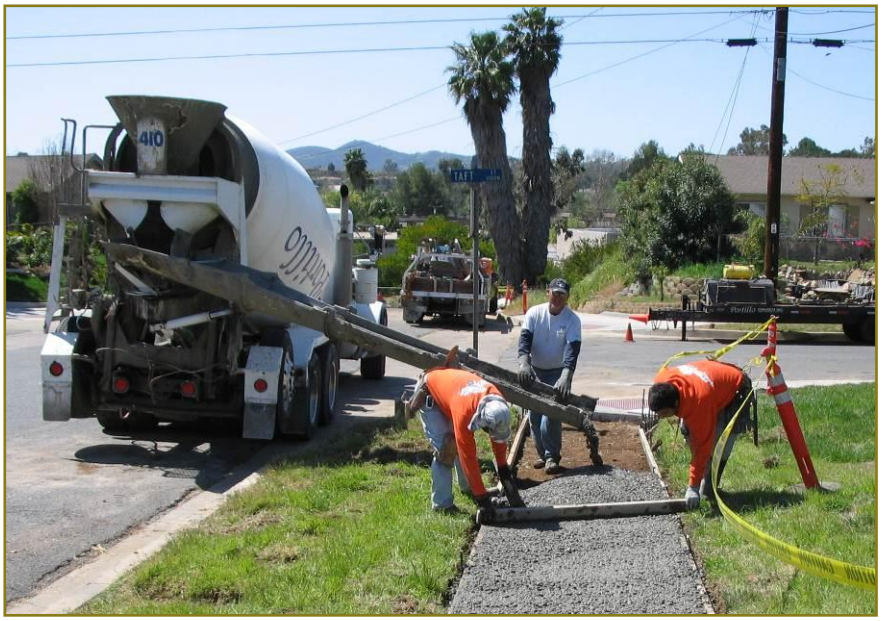
Downtown Escondido's Grand Avenue

C. Complete Streets

Complete Streets is a national movement to ensure that transportation planners and engineers consistently design and operate the entire roadway with safety and accessibility of all users—bicyclists, transit vehicles and riders, and pedestrians of all ages and abilities, as well as goods and services. Complete streets involves changing Escondido's orientation toward building streets primarily for cars by instituting smart growth policies that expand transportation choices to ensure roads function as a truly "multimodal" transportation net-work (Figure III-2).

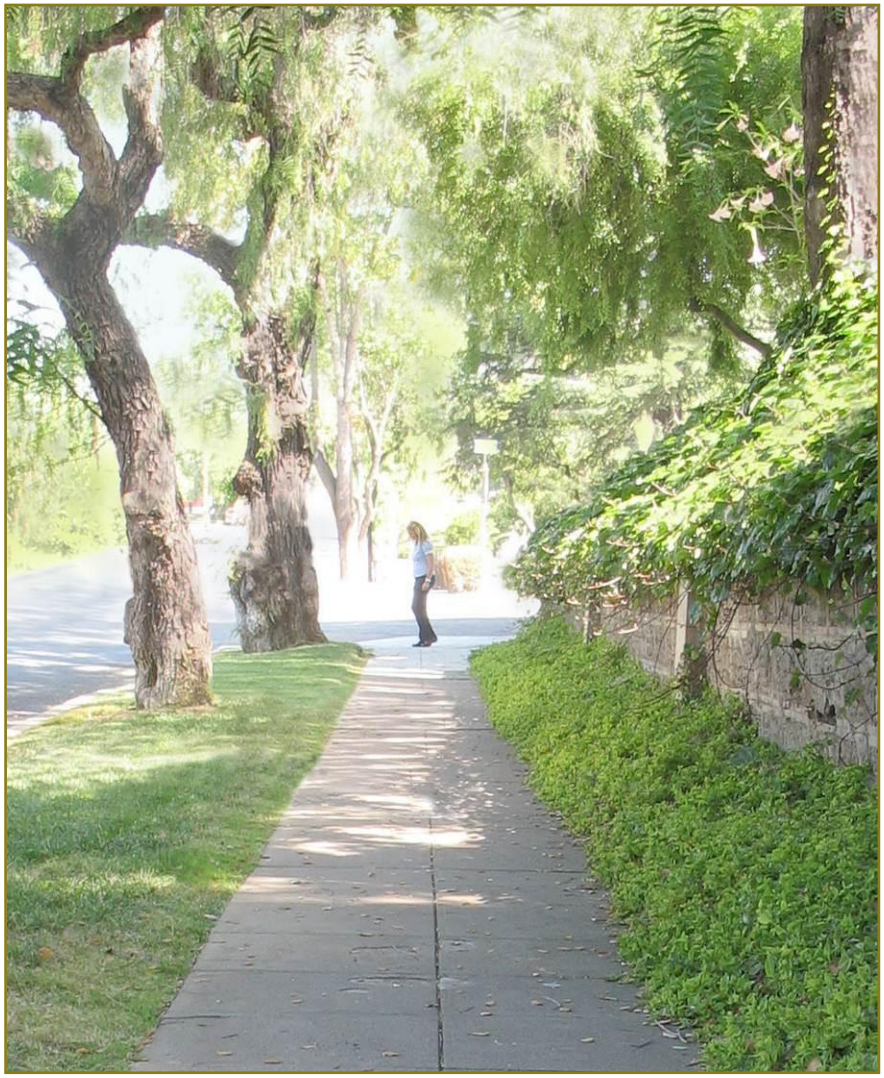
What it takes to make a street "complete" varies depending on many factors. Components may include sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible transit stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and more. A complete street near Daley Ranch will look quite different from a complete street in downtown, but both are designed to balance safety and convenience for everyone using the road.

The benefits of implementing multimodal complete streets include increased transportation choices that give people the option to avoid traffic congestion, and increase the overall capacity of the transportation network. Economic benefits are derived from complete streets because transportation costs and travel times are reduced while property values and job growth are enhanced. Additionally, integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spare the expense of retrofits later. Communities that incorporate complete streets gain quality of life benefits; increased bicycling and walking are indicative of vibrant and livable communities. Public health experts are encouraging walking and bicycling as a response to the nation's obesity epidemic. Streets that provide room for bicycling and walking help children get physical activity and gain independence.



Smart growth land use patterns and instituting complete streets play a direct role in the rate and growth of vehicle miles traveled (VMT) by influencing the distance that people travel and the mode of travel they choose. Developing a complete streets system provides an opportunity for reducing the amount that people drive by increasing the opportunity for walking, bicycling, and transit, thus reducing vehicle emissions. Transportation accounts for a significant percent of California's greenhouse gas (GHG) emissions, which must be reduced pursuant to state law. Studies show that even with aggressive state and federal vehicle efficiency standards and the use of alternative fuels, meeting the state's GHG reduction goals will require expanding transportation choices to increase opportunities for reducing how much the average Californian drives. Reducing the number of automobile trips will reduce fuel consumption and GHG emissions.

Sidewalk installation program in Escondido's established neighborhoods promotes pedestrian activity, improves neighborhood linkages, traffic safety, aesthetics, and property values



1. Pedestrian Network

A safe and accessible pedestrian network for all ages and all abilities is a key component to creating a livable community. People need to feel safe, both from traffic accidents or hazards, and also from crime. Well-designed pedestrian networks can improve the safety of a neighborhood on both levels. An environment in which people are comfortable using the sidewalks helps build a healthy community and prevents crime by adding "eyes on the street," while facilitating a lively atmosphere. Ensuring that streets and intersections are accessible to all ages and ability levels ensures safety, opportunities for physical activity and a pleasant pedestrian experience for everyone. Escondido's General Plan envisions a pedestrian-friendly environment where public spaces, including sidewalks and off-street paths, offer a level of convenience, safety and attractiveness to the pedestrian that will encourage and reward the choice to walk.

"All truly great thoughts are conceived while walking."

Friedrich Nietzsche
Philosopher and Poet

The Escondido Creek path offers pedestrian access to residential neighborhoods, city parks, shopping and employment areas (above)

The shaded sidewalks and tree-lined streets of Old Escondido Neighborhood make the area a popular place for walking (above right)

2. Bicycle Network

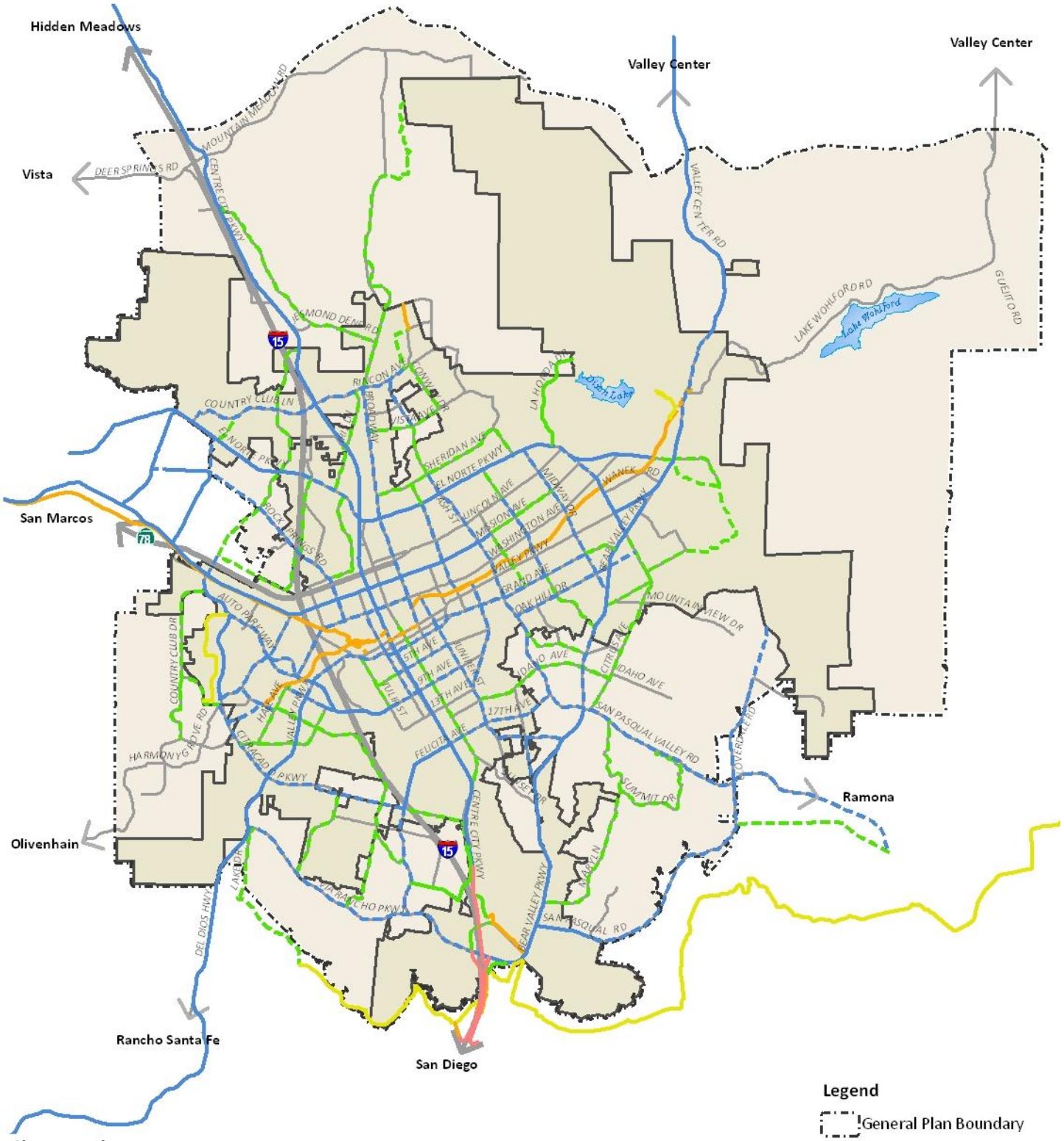
Escondido is committed to supporting bicycling as a form of mobility and recreation. Bicycling is a basic, fundamental mode of transportation that in today's motorized world of travel is often overlooked as an option to help manage circulation issues and concerns. As part of the General Plan's long-term vision, Escondido supports the planning and development of bicycle-friendly projects, streets, and neighborhoods for both commuter and recreational riders.

An underlying principle in planning for bicycling is to provide a system that allows users ample transportation mode choices, and a reasonable balance in accommodating those choices, without favoring one mode at the expense of all others. This means in order to achieve a balance within the current transportation network, bicycling must be made more attractive and truly be a viable option for transportation. This includes creating a network comprised of on-street facilities, off-street facilities, and end-of-trip facilities.

To this end, Escondido has adopted a Citywide Bicycle Master Plan that serves as a policy document to guide the development and maintenance of bicycle facilities throughout the community as part of its complete streets network (Figure III-3). The policies in the Bicycle Master Plan address issues related to Escondido's bikeways such as planning, community involvement, utilization of existing resources, facility design, safety and education, funding and more.

Cyclists must share the road with vehicles on most Escondido streets (above)

The Escondido Creek path offers bicycle access to many areas of the community (above left)



Source: City of Escondido

Escondido General Plan

Existing and Planned Bikeways

Figure III-3

3. Transit System

Transit includes a variety of transportation modes that provide mobility to the public in shared vehicles, ranging from shared taxis and shuttle vans, to local and intercity buses and passenger rail. Transit plays an integral role in improving local and national prosperity, equity, and mobility, and has been cited as crucial part of the solution to economic, energy, and environmental challenges - helping to bring a better quality of life.

Escondido is served by the North County Transit District (NCTD), which includes the cities of Escondido, San Marcos, Vista, Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and portions of the unincorporated county. From Escondido's multimodal transit center NCTD operates the BREEZE bus system, with bus stops located throughout the community, and also manages the SPRINTER light rail line that provides passenger service from Escondido to Oceanside.

During General Plan community meetings residents expressed concern regarding the high number of vehicles on city roadways and the declining traffic levels of service. Transit is envisioned to help Escondido's crowded network by providing energy efficient, pollution-reducing transportation choices thereby reducing greenhouse gas (GHG) emissions. Additionally, transit continues to be one of the safest modes of travel in the United States. Studies indicate that riding a transit bus is 91 times safer than car travel.

Escondido's Multi-Modal Transit Station provides rail, bus, taxi, and bicycle path connections (above)

Rapid Bus service connects downtown Escondido and Westfield's Shoppingtown (above right)

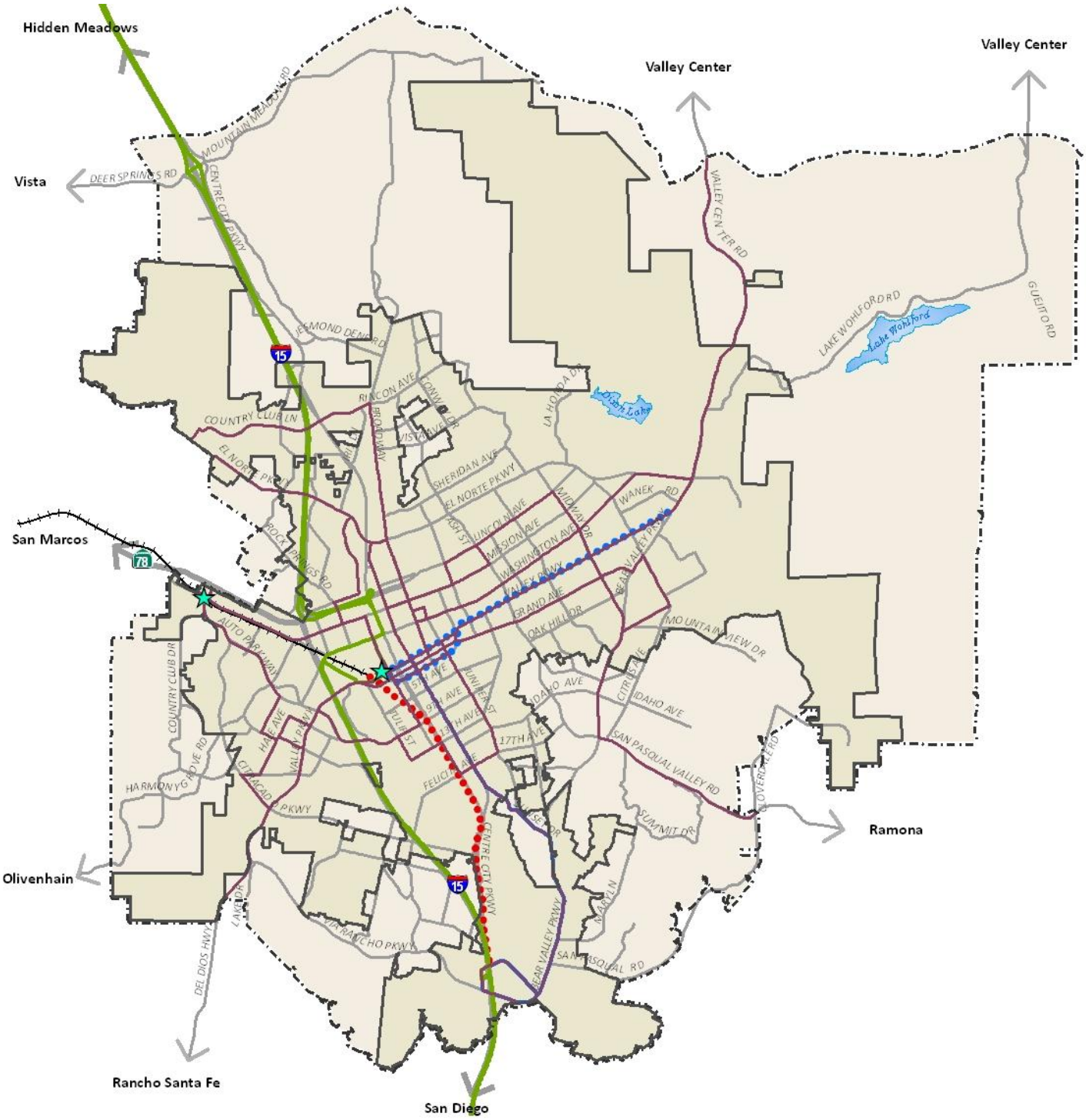
The many benefits derived from a robust transit system establish the basis for its inclusion in Escondido's vision of building a stronger community. Transit is a key feature in smart growth complete streets by creating corridors that become natural focal points for economic and social activities. Studies have shown that the ability to travel in an area conveniently, without a car, is an important component of a community's livability. These activities help create strong neighborhood centers that are more economically stable, safe and productive.

Transit offers many economic benefits for the individual rider and the community. The American Automobile Association cost of driving a single-occupant vehicle compared with one adult's average fee for traveling on transit is several thousand dollars savings per year, depending upon mileage, time of day and type of vehicle or service. For communities, land values are increased near convenient transit, which is viewed as a public amenity. Additionally, areas well served by transit stimulate economic development and increase local sales and property tax revenues.

The San Diego Association of Governments (SANDAG) in co-operation with Escondido and NCTD initiated a Rapid Bus service that provides an enhanced transit connection between the Escondido Transit Center and Westfield Shoppingtown. The infrastructure includes bus stop improvements, queue jump lanes at congested intersections, and transit signal priority. This service also connects to the SPRINTER passenger rail line at Escondido's Transit Center, to existing Metropolitan Transit System services, and to future I-15 transit services.

Features of the Escondido's Rapid Bus service include specially designed shade structures, solar powered LED lighting, seating, and electronic displays announcing BRT arrival times (above and right)

Long-term plans to develop a state-wide high speed rail system call for a future station in Escondido near the Downtown Transit Center. Existing and proposed transit opportunities improve the travel time and reliability without adversely impacting the local infrastructure system. The implementation of these facilities complements the General Plan's vision of establishing ample transit facilities and services to serve the community (Figure III-4).



North County Transit District Bus/Rail Routes*

- Existing SPRINTER Rail Line
- Existing NCTD Rapid Bus
- Transit Station
- Projected NCTD Rail Line
- Projected Future NCTD Rapid Bus
- Local Bus
- BRT (Bus Rapid Transit) Routes

*Note: Additional NCTD bus transit servicing the community is not depicted. Projected NCTD rail service from the existing transit center to Westfield Shoppingtown requires additional evaluation and approval.

Source: City Of Escondido

Legend

- General Plan Boundary
- City Limits
- Highway
- Lakes

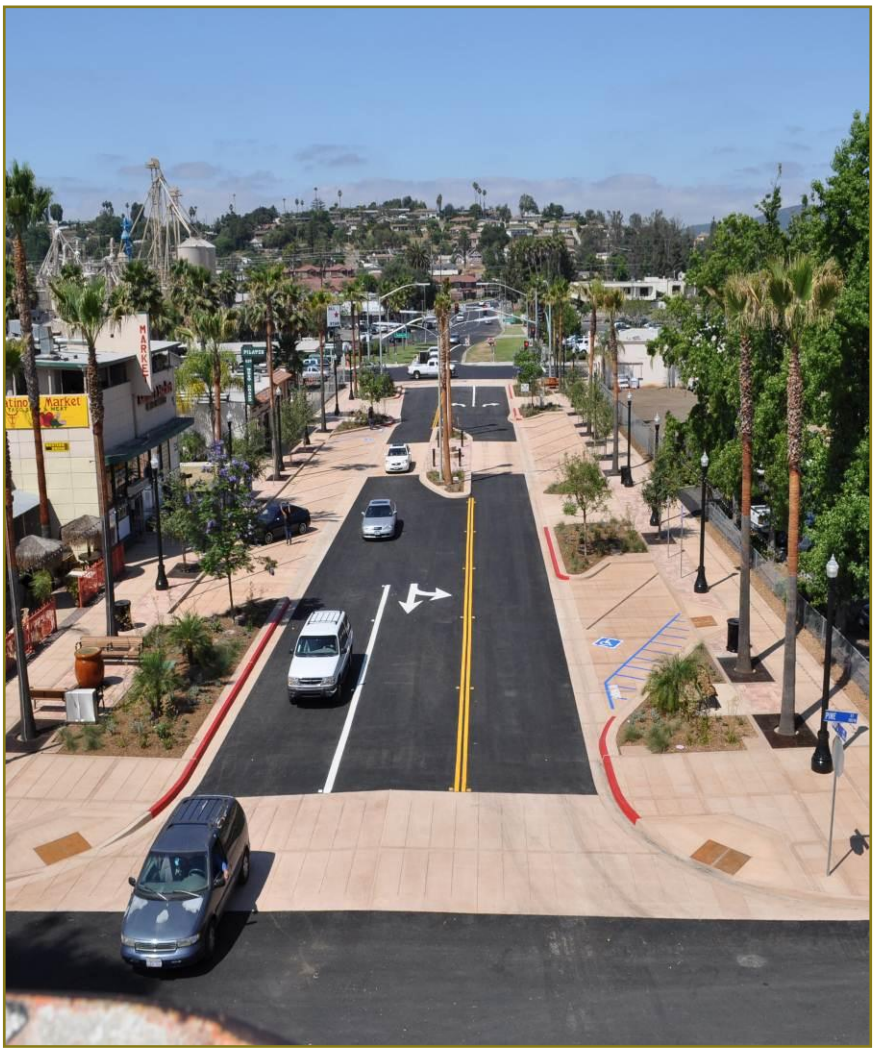
0 0.5 1 Miles

Escondido General Plan

Existing & Proposed Transit Routes

Figure III-4

Traffic calming measures designed for the Mercado District are features that promote pedestrian activity and include corner and mid-block curb extensions, decorative paving, landscaped medians, plantings close to travel lanes, low traffic speeds, and angled parking (above and right)



4. Traffic Calming

Traffic calming measures are proposed for Escondido's circulation system to make streets more enjoyable, and reduce traffic speeds and volumes to more acceptable levels. Definitions of traffic calming vary, but they all share the goal of reducing vehicle speeds, improving safety, and enhancing quality of life. Traffic calming reduces accidents, collisions, noise, vibration, pollution, and crime. In Escondido's downtown area certain intersections have incorporated textured paving and curb extensions that effectively calm traffic and enhance the pedestrian experience. Incorporating these and other traffic calming features in mixed use and urban neighborhoods and other key areas of the community will be important for ensuring pedestrian-friendly environments that still accommodates vehicular traffic

5. Street Network

Escondido's street network serves as the backbone of the community's transportation system (Figure III-6). Streets and highways contribute to the overall community in three ways. First, they connect neighborhoods with each other, and to areas beyond. Second, they allow for the movement of commodities or freight and, therefore, provide economic benefit. Third, they are a focal point for activity and social events that help establish community identity. At community workshops residents reiterated their desire for maintaining a more smoothly operating street network.

The General Plan's Quality of Life standard strives for a level of service "C" (defined by the Highway Capacity Manual) that provides for minimal delays (Figure III-5). The standard also acknowledges that physical design characteristics, implementation of pedestrian-oriented 'smart growth' and Complete Streets design improvements, high density infill areas, environmental resource considerations, existing development, freeway interchange impacts, and incomplete system improvements, may override the ability to meet this standard (Figure III-1).

Figure III-5

Engineering Department Definitions

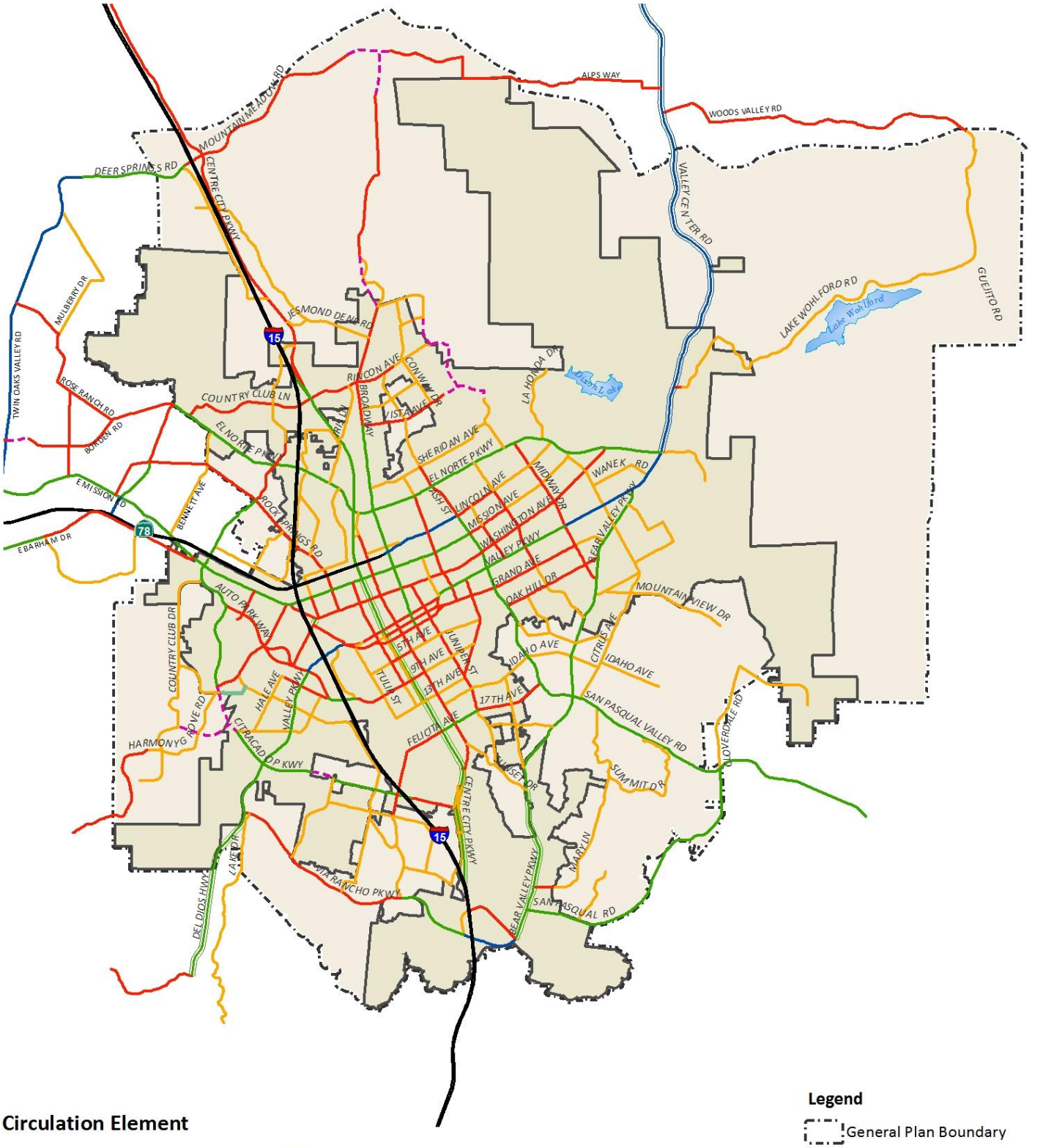
Traffic Level of Service (LOS):
Describes traffic congestion ratings ("A" through "F") during morning and evening peak travel periods.

LOS "A"
Generally free-flowing operations

LOS "C"
Stable operation with some limits on maneuverability that affect speeds

LOS "D"
Maneuverability and flows reduced by longer queues and slower speeds

LOS "F"
Extremely slow "stop and go" speeds with congestion and lengthy queues



Circulation Element

- Freeway
- Super Prime Arterial
- Prime Arterial
- Super Major Road
- Major Road
- Collector
- Local Collector
- Future Alignment

Legend

- General Plan Boundary
- City Limits
- Lakes

0 0.5 1 Miles

Escondido General Plan

Circulation Diagram

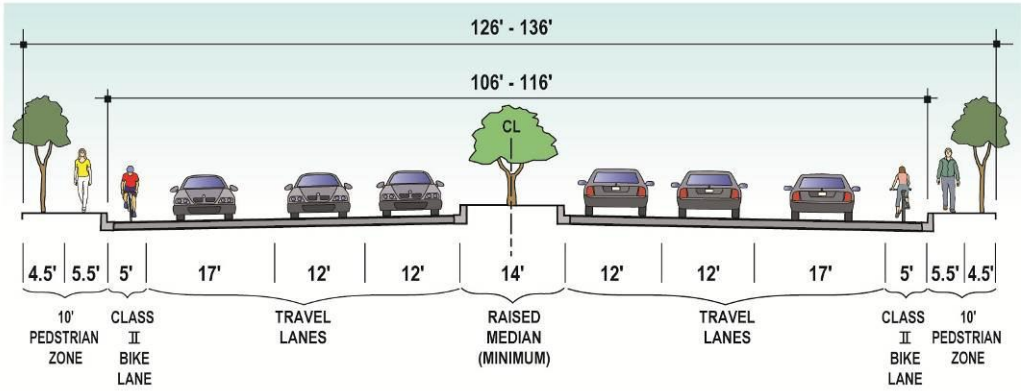
Figure III-6

Escondido's roadways are defined using a hierarchical classification system. Each type of roadway is described by size, function, and capacity. The street network establishes types of roadways, ranging from high capacity state and interstate highways, to two-lane undivided roadways. Some roadway types will have a standard rural cross-section for use in selected areas. Additional rights-of-way, greater than the standard widths, may be required at certain locations to accommodate specific circumstances. The standard roadway classifications are illustrated in Figure III-7, summarized in Figure III-8, and described in the paragraphs that follow.

ROADWAY PROFILES

Figure III-7
(Part 1)

PRIME ARTERIAL



MAJOR ROAD

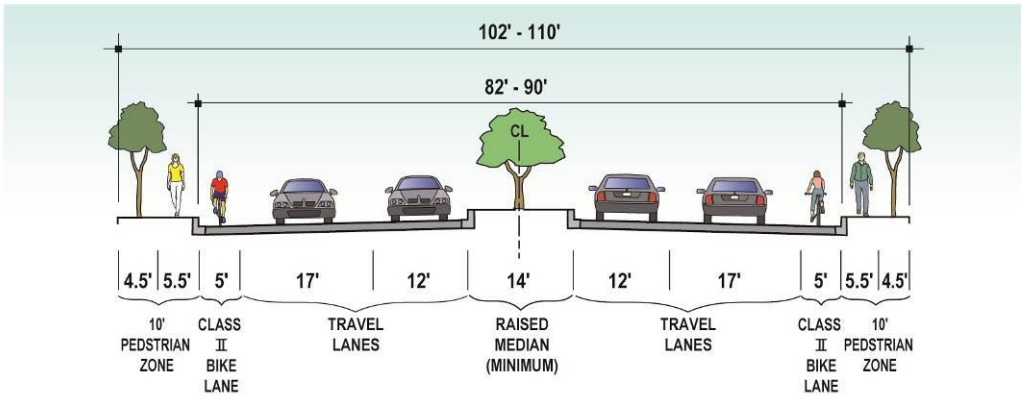


Figure III-8

GENERAL PLAN

ROADWAY CLASSIFICATIONS
(Summary Descriptions)

Prime Arterial:
High design standards, six to eight travel lanes, raised / landscaped medians, no parking, and very limited access. Provides regional, intra-city and sub-regional travel service.
8 lanes: 116' – 136' right of way
6 lanes: 106' – 126' right of way

Major Road:
Four to six travel lanes, controlled access, no parking, and raised / landscaped medians for added safety and efficiency in providing protected left turns at selected locations. Provides intra-city, and sub-regional service.
6 lanes: 90' – 110' right-of-way
4 lanes: 82' – 102' right-of-way

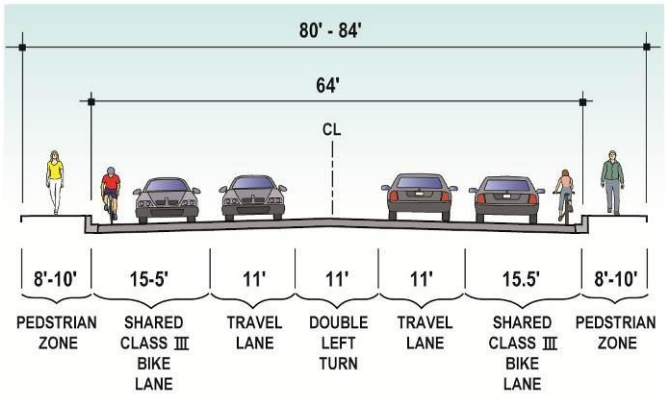
Collector Street:
Four travel lanes, controlled access, and no parking or restricted to areas where turn pockets or continuous turn lanes are provided. Provides intra-city travel.
4 lanes, no parking: 84' right-of-way
2 lanes, parking: 64' right-of-way

Local Collectors:
Two travel lanes with parking, except where parking is removed to provide turn lanes. Provides access between neighborhoods and to the Collector Street system.
2 lanes, no parking: 42' right-of-way
2 lanes, parking: 66' right-of-way

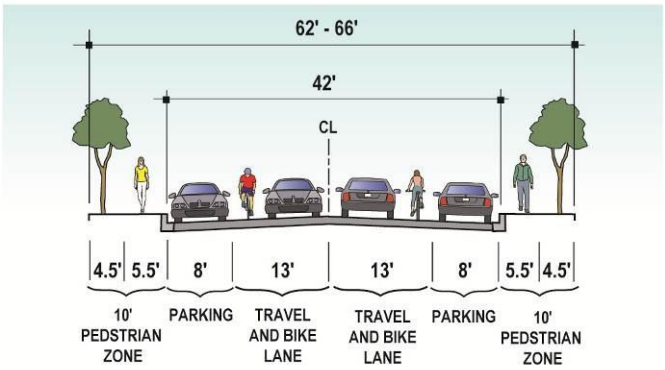
Note: Street classifications identify right-of-way widths. Lane, median and pedestrian zone dimensions and improvements may vary based on bicycle improvements, location and traffic conditions.

Figure III-7
(Part 2)

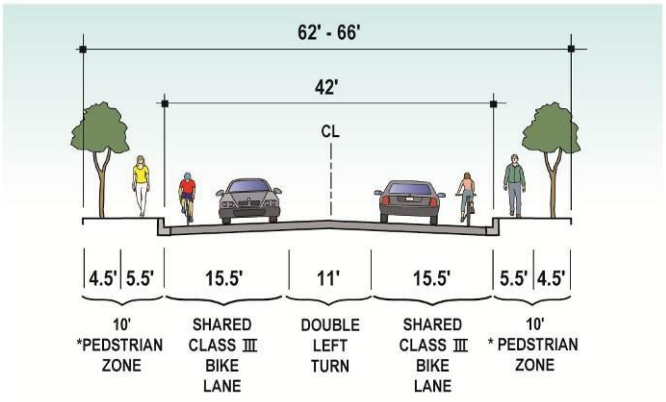
COLLECTOR STREET



LOCAL COLLECTOR
(PARKING, NO LEFT TURN LANE PROVIDED)



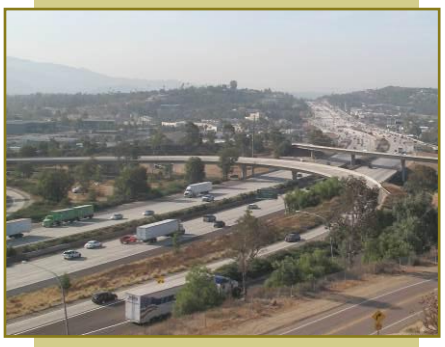
LOCAL COLLECTOR
(NO PARKING LEFT TURN LANE PROVIDED)



Escondido's asphalt patching program repairs local streets and fills potholes

a. Freeways

Interstate 15 and State Highway 78 design standards are dictated by Caltrans District 11. Interchange improvements are identified in the Circulation Plan and require coordination and approval by Caltrans. Interchange on-ramps along Interstate 15 and State Highway 78 within Escondido are subject to peak period ramp metering. The city supports the concurrent implementation of high occupancy vehicle (HOV) bypass lanes at the ramps (where possible) to promote ride sharing and transit use.



Interstate 15 and Highway 78
Freeway Classification

b. Prime Arterials

Prime Arterials are six-lane thoroughfares with raised landscaped medians. In some circumstances, eight lanes may be required. Access to Prime Arterials may vary depending on where the facility is located within the community, but is typically limited to adjacent commercial properties at signal-controlled intersections. Traffic carrying capacities of 70,000 vehicles per day can be achieved depending on the degree of access control, peak period traffic loadings, and lane configurations at the major intersections

Curbside parking is prohibited and generally, one-quarter mile intersection spacing is considered as a distance minimum. Where overriding circumstances will not allow the desired intersection spacing to be met, left turn restrictions should be considered at all unsignalized intersections. Design features such as curb radii and acceleration/deceleration lanes to accommodate higher speeds may be incorporated where appropriate for the intersection design. Prime Arterials roadways in Escondido include West Valley Parkway between Tulip Street and Ninth Avenue, Via Rancho Parkway south of Westfield Shoppingtown, and East Valley Parkway, east of Midway Drive.

Valley Center Road
Prime Arterial Classification

c. Major Roads

Major Roads are four lane roadways with painted or raised landscaped medians. Minimum spacing for intersections along Major Roads should be one-eighth mile. Left turn restrictions will generally be placed at minor unsignalized driveways. Bike lanes are incorporated into Major Road design standards, however, as a primary traffic carrier, curbside parking may not be appropriate along most of the more heavily traveled Major Road street segments within the community. Traffic carrying capacities of 50,000 vehicles per day can be achieved depending on the degree of access control and peak period loadings. Major Roads in Escondido's circulation system include Centre City Parkway, El Norte Parkway, and Broadway between Washington and Vista Avenues.

Auto Park Way
Major Road Classification

Grand Avenue
Collector Street Classification

Tulip Street
Local Collector Classification

d. Collector Streets

Collector Streets are four-lane roadways without medians (undivided) with minimum intersection spacing approximately one-sixteenth mile (330 feet). Direct access from private residential properties is not prohibited, but should be avoided where possible. Collector Street design standards accommodate bicycle lanes with no curbside parking upon build out of the city. However, many Collector Streets in the community currently include curbside parking with no bicycle lanes provided. This requires cyclists to share a travel lane with vehicles. In some locations, Collector Streets may include a limited median, or be striped to provide a left-turn pocket. Traffic carrying capacities of approximately 34,200 vehicles per day can be achieved depending on the degree of access allowed and peak period traffic loadings. Collector Streets in Escondido include Washington Avenue, Grand Avenue, Country Club Lane, and Escondido Boulevard.

e. Local Collector

Local Collector streets often provide access between neighborhoods and connection to larger streets in the circulation system. Local Collectors are two-lane roadways that may include painted medians for left turn movements depending on location within the community. Direct access from individual residential properties is permitted. The desirable intersection spacing for Local Collectors is approximately 330 feet. Minimum intersection/access spacing on all Local Collector roadways should be 200 feet. Local Collectors provide for curbside parking and bicycle lanes. Parking should be restricted near intersection approaches where separate right-turn lanes are provided. Traffic carrying capacities of 15,000 vehicles per day can be achieved depending on the degree of access control and peak period traffic loadings. Local Collector streets in Escondido include Sheridan Avenue, Tulip Street and Seven Oakes Road.

f. Local Streets

Local Streets are two-lane roadways without medians and not shown on the Circulation Plan but do provide a vital service by connecting subdivision and neighborhoods to the city's street system. Centerline striping is typically not provided, and curbside parking is allowed. Traffic carrying capacity is physically similar to a Local Collector, however the qualitative limit of acceptable traffic volumes in a residential environment is substantially lower (less than 10,000 vehicles per day).

Escondido GENERAL PLAN

D. Goods and Services Transport

Transportation is central to Escondido's economic competitiveness. The retail, manufacturing, finance, insurance, real estate, and service sectors of Escondido's economy make up a large percentage of the city's revenue sources. Interstate 15 and State Highway 78, as well as the NCTD rail line providing freight service, comprise a critical link of the city's circulation system. Ensuring an efficient city street system to facilitate the movement of goods and services helps ensure that those revenues remain reliable.

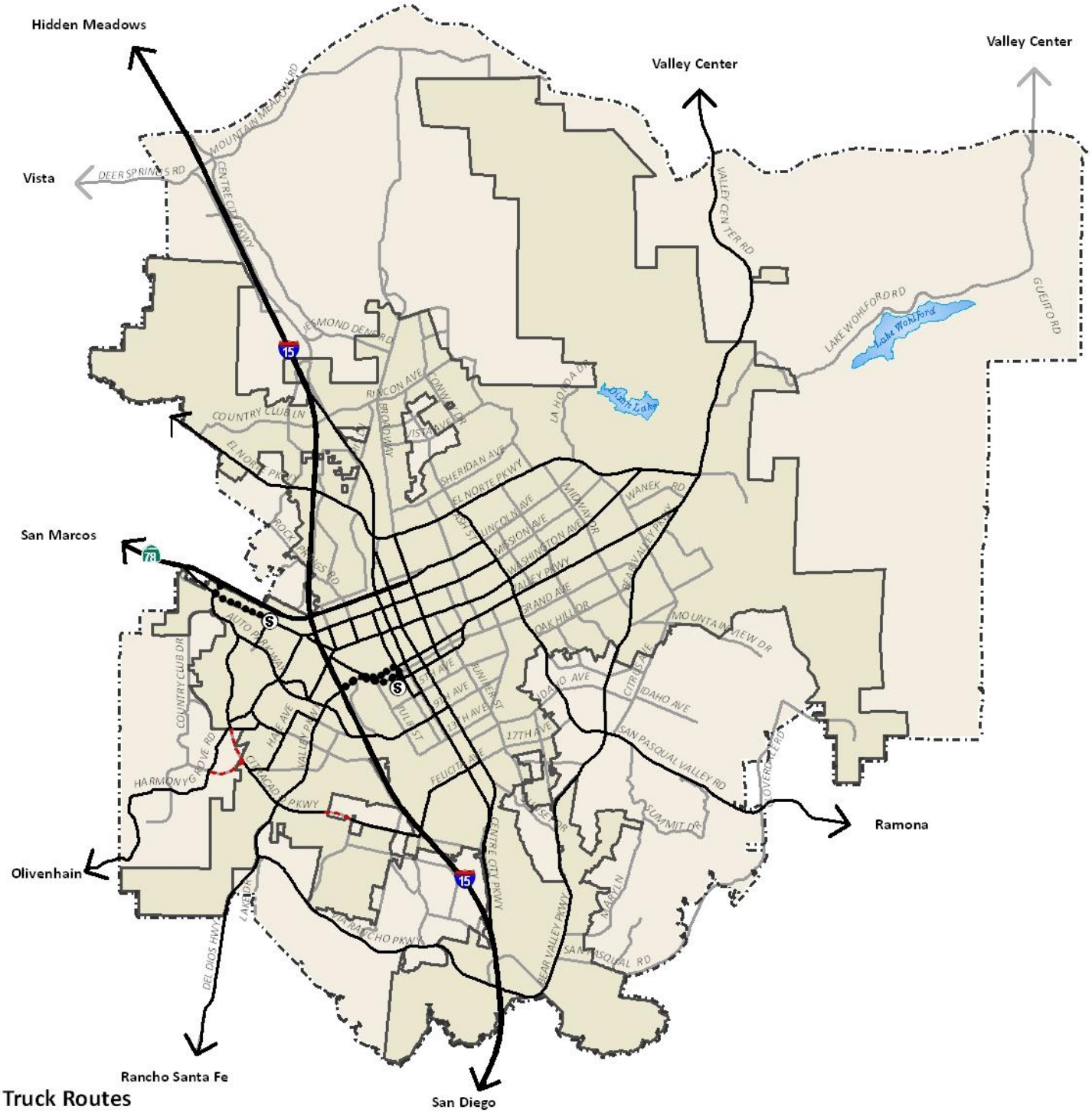
1. Freight Rail

Escondido's rail line from Oceanside that offers North County Transit District (NCTD) passenger service also provides freight service on a scheduled basis. The rail line played an important role in Escondido's early history years when transporting agricultural goods was the community's primary revenue generator. Rail freight service has played a declining role in Escondido's circulation system over the past several decades. However, policies are included in the General Plan to guide this transportation component.

2. Truck Transport

Truck transport of goods on local surface streets is the most frequent method of delivery for products in the community. Designating appropriate truck routes are important for balancing quality of life factors for quiet residential neighborhoods and economic interests that ensure efficiency in service. Figure III-9 identifies certain truck routes to control the size and type of trucks that travel within an area of the city, thereby lessening the impact on residents.

Goods and Services are primarily transported to and through Escondido via Interstate 15 and State Highway 78


Hidden Meadows
Valley Center
Valley Center
Vista
San Marcos
Ramona
Olivenhain
Rancho Santa Fe
San Diego
Truck Routes
Truck Route
STAA Local Truck Route**
Segment Not Constructed
Local Service Access for STAA Trucks
**The Surface Transportation Assistance Act (STAA) of 1982 allows large trucks to operate on the Interstate and certain primary routes (including State Highway 78) called collectively the National Network. These trucks, referred to as STAA trucks, are longer than California legal trucks. As a result, STAA trucks have a larger turning radius than most local roads can accommodate and are limited to the Local Truck Routes as depicted in this map.
Source: City of Escondido
Legend
General Plan Boundary
City Limits
Highway
Lakes
0
0.5
1
Miles
Escondido General Plan
Truck Routes
Figure III-9

E. Aviation

The Federal Aviation Administration (FAA) regulates airspace over Escondido. San Diego International Airport located 30 miles south of Escondido serves as the region's primary facility for business and pleasure air travel. McClellan-Palomar Airport, approximately 10 miles west of Escondido in the City of Carlsbad, accommodates private and smaller commercial aircraft on a scheduled basis. Both airport facilities have undergone facility expansions in recent years. A small private airfield located northwest of Lake Wohlford has no scheduled flight service.

1. Air Ambulances

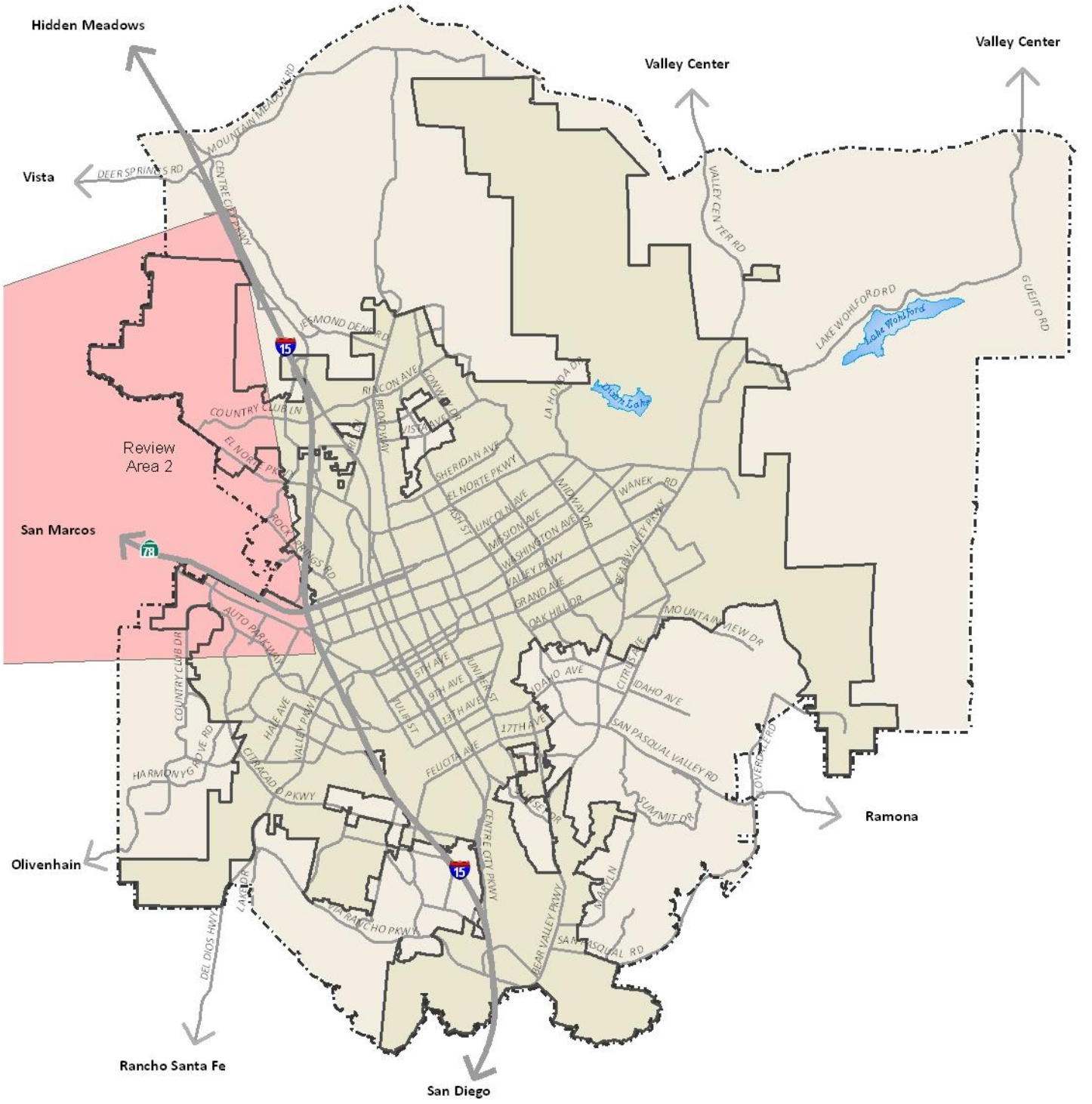
The FAA regulates the operability of air ambulances for emergency patient helicopter flights to Palomar Hospital. Although there are guidelines for departures and approaches to hospital landing sites, there are no laws or regulations regarding the specific flight patterns of air ambulances because they are non-scheduled, fly in various directions transporting patients to and from hospitals and must vary their path to adjust for other air traffic, tall buildings and weather conditions. They generally fly certain corridors over major arterial streets and freeways until they are in the proximity of the hospital.

2. Airport Operations

The County of San Diego is owner and operator of McClellan-Palomar Airport, 12 miles west of Escondido, and under regulations by the FAA. The San Diego County Regional Airport Authority is responsible for preparing an Airport Land Use Compatibility Plan (ALUCP) to protect the general welfare of people and property within the vicinity of airports, inform the public regarding airport operations, and provide guidance on appropriate land uses surrounding the facility.

An Airport Influence Area (AIA) is established in the ALUCP based on the airport's size, current and future operations with compatibility criteria including noise, safety, airspace protection, and over-flight considerations that may affect or restrict land uses. Portions of Escondido are within the airport's AIA Review Area 2 (Figure III-10) which defines airspace protection and/or overflight notification areas. Limits on the heights of structures, particularly in areas of high terrain, are the only restrictions on land uses within Review Area 2. No overflight notification areas from the McClellan-Palomar Airport ALUCP apply to land within Escondido, nor does any terrain in the community penetrate the airport's airspace. Also refer to airport *Noise Policies* in the Community Protection Element.

McClellan–Palomar Airport is located approximately 10 miles west of Escondido



McClellan-Palomar Airport Influence Area

Influence Area

Source: San Diego County Regional Airport Authority

Escondido General Plan

McClellan-Palomar Airport Influence Area

Figure III-10

The Hale Avenue Resource Recovery Facility (in blue) including Escondido's 14-mile underground land outfall to San Elijo Lagoon, and 1.5-mile ocean outfall

F. Utility Infrastructure

The availability of, and access to utility infrastructure are significant factors that ensure a high quality of life for residents and determine growth rates, patterns, densities, and intensities of land use. This portion of the Mobility and Infrastructure Element discusses the community's existing and future utility needs including water, sewer, storm drains, solid waste, energy, and telecommunications.

Figure III-11

GENERAL PLAN

QUALITY OF LIFE STANDARD #10

WATER SYSTEM

The city shall maintain provisions for adequate water supply, treatment and infrastructure capacity to meet normal and emergency situations and shall have the capacity to provide a minimum of 540 gallons per day per household or as established by the city's Water Master Plan. Federal and state drinking water quality standards shall be maintained. The city shall continue efforts to implement water reclamation and water conservation programs.

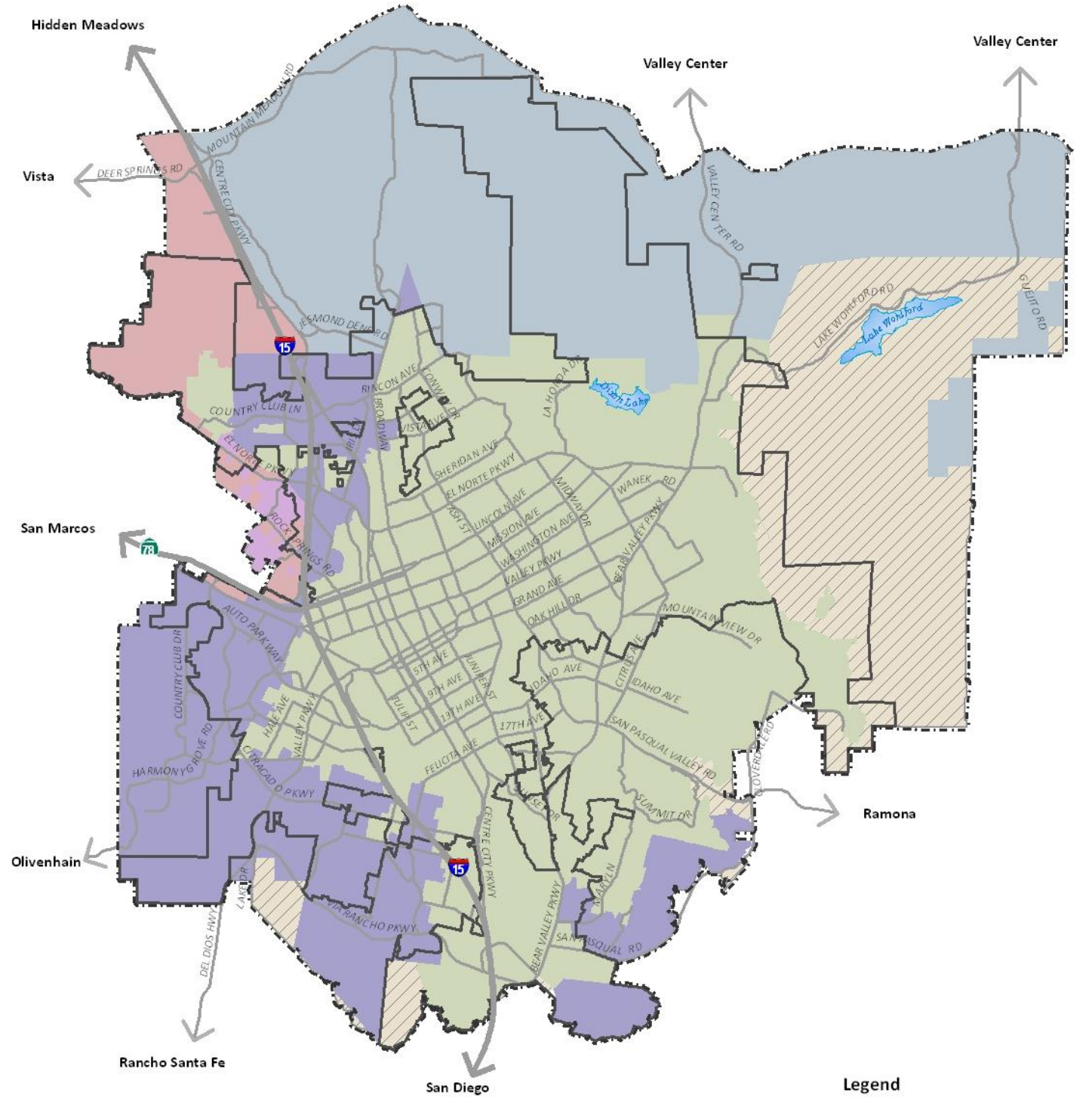
Escondido's Water Treatment Facility located east of Lake Dixon

1. Water System

Escondido's water supply originates primarily from two sources: local water, derived from precipitation and stored in Lakes Dixon, Henshaw, and Wohlford, as well as imported water transmitted by the San Diego County Water Authority. The General Plan Quality of Life Standard establishes a service threshold and identifies the Water Master Plan as the guiding document for ensuring the adequacy of facilities to meet the demands of existing and future growth projected over the General Plan horizon (Figure III-11).

The City of Escondido provides water service to most of the territory within the General Plan area. In addition, portions of Rincon del Diablo, Valley Center, and Vallecitos Municipal Water Districts' territories are included within Escondido's planning area (Figure III-12). The city collaborates with these agencies in the development and maintenance of water infrastructure facilities.

Potential limitations on the availability of supplies require the need to combine long-term planning for water supply with long-term planning for community development. Water conservation measures will be implemented to increase water use efficiency. Existing water infrastructure will be maintained and priority given to fund critical infrastructure in need of improvements, while new development will not be constructed until adequate infrastructure is in place.



Source: City of Escondido

Escondido General Plan

Water Service Boundaries

Figure III-12

Figure III-13

GENERAL PLAN

QUALITY OF LIFE STANDARD #5

WASTE WATER SYSTEM

The city wastewater system shall have adequate conveyance pipelines, pumping, outfall, and secondary treatment capacities to meet both normal and peak demands to avoid wastewater spills affecting stream courses and reservoirs. Capacity to treat a minimum of 250 gallons per day for each residence on said system or as established in the city's Wastewater Master Plan shall be provided.

Aeration chambers at the city's wastewater treatment facility (Hale Avenue Resource Recovery Facility; HARRF) (above)

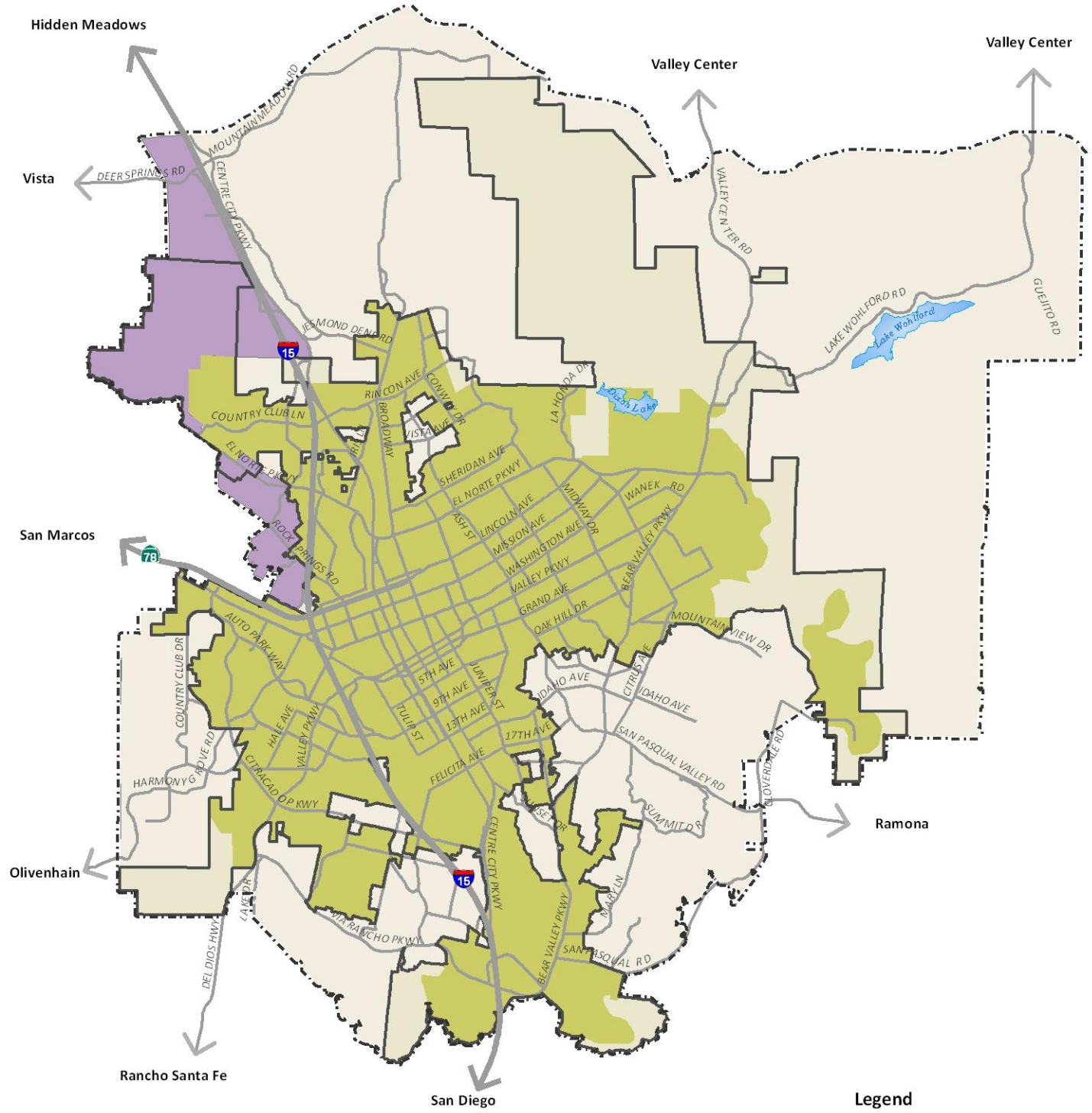
Aerial view of the HARRF (above right)

2. Wastewater Services

Escondido's wastewater is treated at the Hale Avenue Resource Recovery Facility (HARRF) treatment plant, conveyed over land, and discharged through an ocean outfall. The HARRF also treats and recycles a significant portion of wastewater and provides reclaimed water for irrigation and industrial/commercial use. The General Plan Quality of Life Standard establishes a service threshold and identifies the Wastewater Master Plan as the guiding document for ensuring the adequacy of facilities to meet the demands of existing and future growth projected over the General Plan horizon (Figure III-13).

The City of Escondido is the primary agency providing wastewater treatment within the General Plan area, and also treats wastewater involving areas in northern Rancho Bernardo (City of San Diego). Wastewater treatment is also provided to areas in the General Plan by Vallecitos Municipal Water District (Figure III-14). The city collaborates with area agencies in the development and maintenance of wastewater infrastructure facilities.

The availability of wastewater service distinguishes between urban and rural development. Thus, the extension of services and the availability of capacity will influence how much and where Escondido grows. Existing wastewater infrastructure will be maintained and priority given to fund critical infrastructure in need of improvements, while new development will not be constructed until adequate infrastructure is in place.



Legend

- General Plan Boundary
- City Limits
- Highway
- Street
- Lakes

0 0.5 1 Miles

Sewer Service Boundary

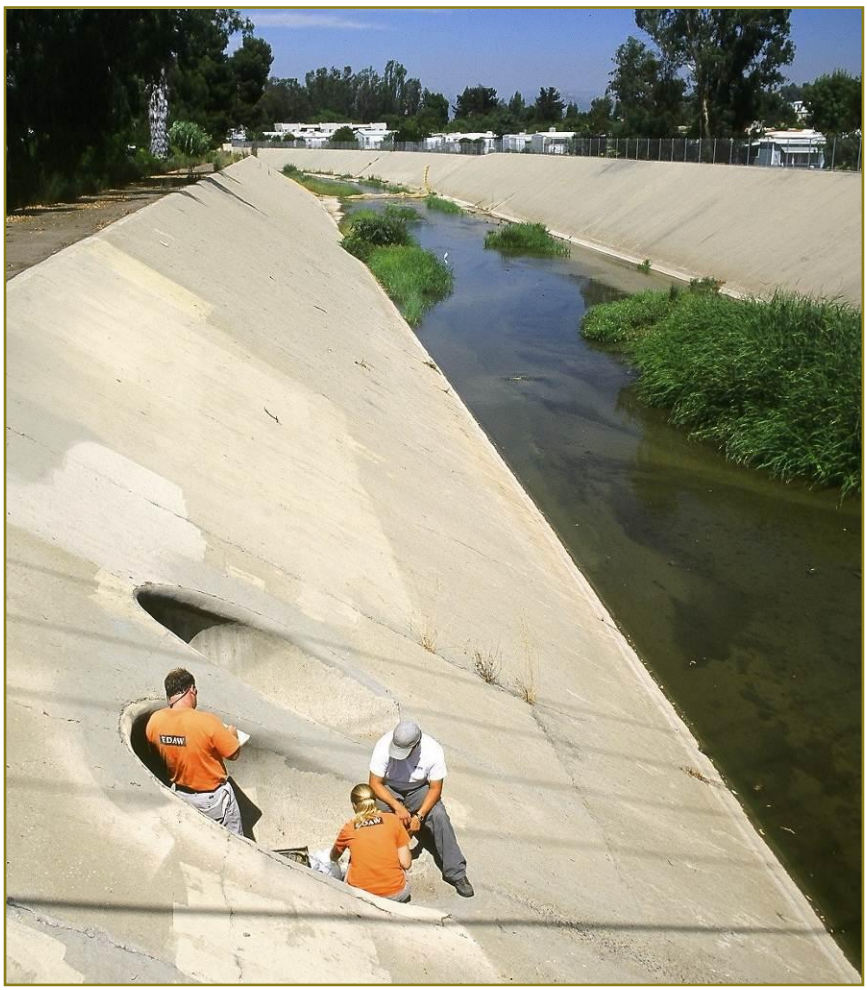
- Escondido Sewer Service Area
- Vallecitos Water District

Source: City of Escondido

Escondido General Plan

Sewer Service Boundary

Figure III-14



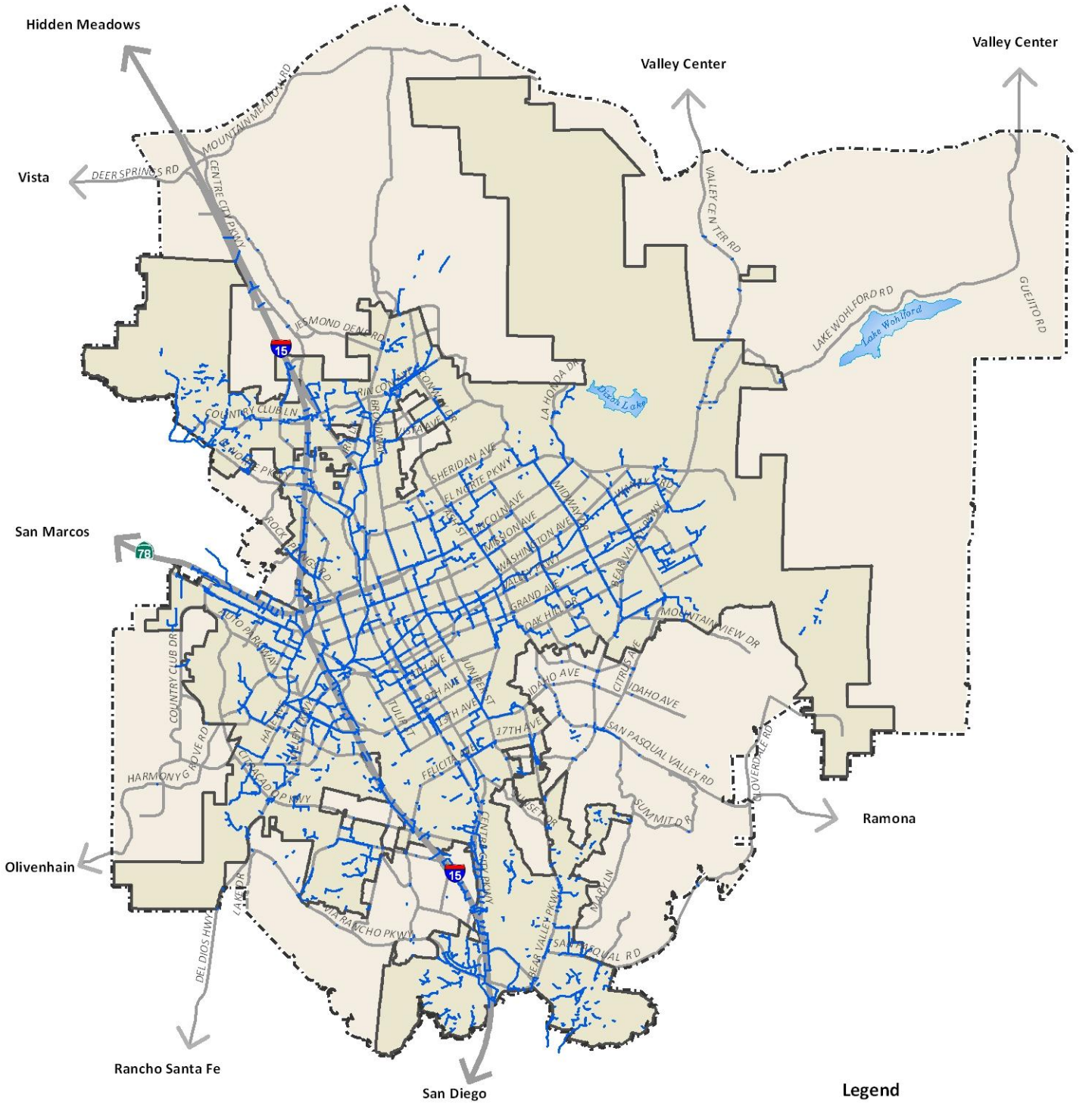
More recent stormwater management facilities include Reidy Creek Golf Municipal Course designed to improve water quality, control flooding, and provide open space and recreation (above)

Workers inspecting the Escondido Creek Channel, originally constructed in the 1960s (above right)

3. Stormwater Management

Escondido's planning area is located within three hydrologic units: Escondido Creek, San Dieguito River, and San Luis Rey Creek. The city's drainage master plan requires that adequate flood control facilities be installed to protect all structures and major roadways from hazards associated with proximity to a 100-year flood plain. New development and redevelopment is required to either avoid flood hazards or incorporate them into the overall design.

Stormwater management also includes ensuring adequate capacity necessary to collect and carry storm-water to avoid flooding, and reducing pollutants and erosion as part of regional efforts to improve water quality. The city maintains an extensive storm drain system that is capable of protecting and properly managing stormwater to prevent flooding and pollution of rivers, lakes and ultimately the ocean by contaminants from urban runoff (Figure III-15). Also refer to *Floods* in the Community Protection Element, and *Water Resources* in the Resource Conservation Element.



Source: City of Escondido

Escondido General Plan

Storm Drains

Figure III-15

4. Solid Waste and Recycling

Solid waste generated in Escondido is collected by a private service provider who collects solid and green waste (grass clippings, tree and shrub trimmings), hazardous household waste, and recyclable materials. Escondido's solid waste is first brought to a collection and sorting transfer facility in the city before being taken to Sycamore Land Fill in Santee, California. The City of Escondido is committed to encouraging recycling and waste reduction. A variety of programs are offered to assist Escondido residents in their conservation efforts. General Plan policies are consistent with the city's desire to be a more sustainable community as it has been recognized that recycling reduces green house gas emissions through energy savings, and reduced solid waste results in less land devoted to landfills.

Trash collection and transfer at Escondido's EDCO facility (above)

Separating recyclables at the EDCO facility (above right)

5. Gas and Electric Energy

The reliable availability of energy for the community is important for the community's existing population and future growth. Escondido's primary sources of energy are electricity and natural gas provided by San Diego Gas and Electric (SDG&E) which serves San Diego County and portion of southern Orange County totaling 4,100 square miles. SDG&E is a subsidiary of Sempra Energy Corporation and regulated by the California Public Utilities Commission (CPUC).

SDG&E operates Palomar Power Plant, a 550-megawatt electric energy generating facility in the Escondido Research Technology Center. SDG&E and the city work together to promote energy conservation and ensure sufficient energy supplies are available to the community through collaboration and coordination of development applications and future planning efforts. Policies in this section require reducing the peak electric load for city facilities, reducing the city fleet fuel consumption, improving energy efficiency of city facilities, and encouraging residents to consume less energy. Policies also support an increasing reliance on renewable energy to reduce Escondido's dependence on nonrenewable energy sources.

6. Telecommunications

Several private companies provide telecommunication services to Escondido residents and business, including AT&T, Cox, Verizon, and others. Communication technology continues to evolve and advancements in the field of telecommunications provide more efficient options that improve quality of life and enhance economic opportunities. Benefits of a sophisticated telecommunications system provide residents opportunities to utilize technology for establishing home offices, which decrease commutes, reduce greenhouse gas emissions, improve neighborhood security, and provide flexibility for working parents.

The city will continue to work with providers to ensure high quality reliable telecommunications services. Policies in the General Plan promote a wide range of innovative systems and services to attract and retain state-of-the-art businesses citywide, provide access to all residents, and facilitate public education.

An electric generating "peaker plant" in Escondido provides additional energy capacity during high demand

G. Mobility and Infrastructure Goals and Policies

A complete list of the General Plan Goals is located in the Vision and Purpose. Specific goals and policies related to mobility and infrastructure provided below are intended to guide development to meet present and future needs, achieve a vibrant community, and enhance the character of Escondido.

1. Regional Transportation Planning

GOAL 1 An accessible, safe, convenient, and integrated multi-modal network that connects all users and moves goods and people within the community and region efficiently.

Regional Transportation Planning Policy 1.1
Cooperate with the San Diego Association of Governments (SANDAG), North County Transit District (NCTD), adjacent communities and other appropriate agencies to prepare, adopt, and implement a Regional Transportation Plan (RTP). The RTP shall define mobility improvements and programs to support local and regional growth, and promote reduction of single-occupancy vehicle travel and increased use of alternative modes of transportation.

Regional Transportation Planning Policy 1.2
Collaborate with SANDAG and NCTD for the efficient allocation of funding resources for transit and transportation improvements and operations.

Regional Transportation Planning Policy 1.3
Coordinate local traffic management efforts to be compatible and provide connectivity with adopted circulation plans in the region and regional transportation planning efforts.

2. Complete Streets

Complete Streets Policy 2.1
Ensure that the existing and future transportation system is interconnected and serves multiple modes of travel, such as walking, biking, transit, and driving for safe and convenient travel.

Complete Streets Policy 2.2
Provide a safe, efficient and accessible transportation network that meets the needs of users of all ages including seniors, children, disabled persons, and adults.

Complete Streets Policy 2.3
Promote integrated transportation and land use decisions that enhance human-scale smart growth development served by complete streets, which facilitate multimodal transportation opportunities.

Complete Streets Policy 2.4
Evaluate access, safety, and convenience of various transportation modes for every project involving the following eight user groups: pedestrians, children, disabled individuals, seniors, bicyclists, transit riders, motorists, and goods and services.

Complete Streets Policy 2.5
Design streets in a manner that is sensitive to the local context and recognizes that the needs vary between mixed use, urban, suburban, and rural settings.

Complete Streets Policy 2.6
Ensure that the entire right-of-way is designed to accommodate appropriate modes of transportation.

Complete Streets Policy 2.7
Remove barriers, where feasible, to allow people of all abilities to access the mobility infrastructure serving the community.

Complete Streets Policy 2.8
Promote the provision of multimodal access to activity centers such as commercial centers and corridors, employment centers, transit stops/stations, schools, parks, recreation areas, and tourist attractions.

Complete Streets Policy 2.9
Regularly review, update and collect adequate traffic impact fees and ensure the efficient allocation of state and regional funding sources for the development and maintenance of local transit and transportation improvements and operations.

"Complete Streets" features installed in the Mercado include pedestrian lighting, seating, landscaping, decorative pavement and traffic calming features

3. Pedestrian Network

Pedestrian Network Policy 3.1
Prepare and regularly update a Pedestrian Master Plan that identifies and defines the following: level of service standards for pedestrian facilities; type and location of pedestrian-oriented streets and pathways; way-finding program, standards for sidewalk width, improvements, amenities, and street crossings; outline and timeframe of needed public improvements; and developer responsibilities.

Pedestrian Network Policy 3.2
Develop and manage pedestrian facilities to maintain an acceptable Level of Service as defined in the Pedestrian Master Plan.

Pedestrian Network Policy 3.3
Maintain a pedestrian environment that is accessible to all and that is safe, attractive, and encourages walking.

Pedestrian Network Policy 3.4
Preserve and enhance pedestrian connectivity within existing neighborhoods via the Escondido Creek trail, sidewalks, and trails, and require a pedestrian network in new developments that provides efficient and well-designed connections to adjacent land uses, commercial districts, schools, and parks.

Pedestrian Network Policy 3.5
Promote walking and improve the pedestrian experience by requiring pedestrian facilities along all classified streets designated on the Circulation Plan; implementing streetscape improvements along pedestrian routes that incorporate such elements as shade trees, street furniture, and lighting; orienting development toward the street; employing traffic calming measures; and enforcing vehicle speeds on both residential and arterial streets.

Pedestrian Network Policy 3.6
Enhance pedestrian visibility by enforcing parking restrictions at intersection approaches, improving street lighting, and identifying required clearances to minimize obstructions.

Pedestrian Network Policy 3.7
Encourage and support the development of pedestrian-friendly mixed-use, commercial, transit-oriented, and multi-tenant office districts with active, accessible, connected, and unique public spaces that promote walking.

Along Second Avenue, decorative paving, shade and separation from vehicles promote pedestrian activity

Pedestrian Network Policy 3.8
Repair sidewalk and pedestrian paths in the public-right-of-way that impede pedestrian travel, and maintain the pedestrian network in a manner that facilitates accessibility and safety.

Pedestrian Network Policy 3.9
Support "safe routes to schools" programming and partner with schools, non-profit organizations, and transit agencies with the goal of encouraging more children to walk and bike to school in a safe environment.

Pedestrian Network Policy 3.10
Design and construct pedestrian-friendly streetscape improvements that reduce stormwater and pollutant runoff into the drainage system, using such techniques as urban bio-swales for the filtering of pollutants and permeable hardscapes.

4. Bicycle Network

Bicycle Network Policy 4.1
Maintain and implement a Bicycle Master Plan that enhances existing bicycle routes and facilities; defines gaps and needed improvements; prescribes an appropriate Level of Service; outlines standards for their design and safety; describes funding resources; and involves the community.

Bicycle Network Policy 4.2
Develop and manage bicycle facilities to maintain an acceptable Level of Service as defined in the Bicycle Master Plan.

Bicycle Network Policy 4.3
Promote bicycling as a common mode of transportation and recreation to help reduce traffic congestion and improve public health.

Bicycle Network Policy 4.4
Develop bicycle routes and facilities that connect to transit stations, employment and commercial centers, schools, libraries, cultural centers, parks, the Escondido Creek trail, and other frequently visited destinations throughout the community and region where they do not already exist.

Bicycle Network Policy 4.5
Coordinate with adjacent jurisdictions the development of bicycle routes that provide connectivity between the communities.

Escondido's Eureka Springs single family development with landscaped and shaded parkways is a desirable example of pedestrian improvements that promote walking (above)

Escondido Creek provides a Class III Bicycle Path experience through urbanized Escondido with separation from motorized vehicles

Bicycle racks on North County Transit District (NCTD) busses accommodates cyclists (above)

Stations along NCTD's Rapid Bus route incorporate solar energy lighting, shade, seating, and bus schedule information

Bicycle Network Policy 4.6
Incorporate bicycle parking facilities in public places such as transit stops, libraries, and parks where feasible.

Bicycle Network Policy 4.7
Require larger new development projects (e.g., employment centers, educational institutions, and commercial centers) to provide connections to existing and proposed bicycle routes, as well as bicycle parking, personal lockers, showers, and other bicycle support facilities to encourage biking.

Bicycle Network Policy 4.8
Support education programs for motorists and bicyclists regarding bicycling safety and the public health and environmental benefits of bicycling.

5. Transit System

Transit System Policy 5.1
Collaborate with the North County Transit District (NCTD) to facilitate effective, convenient, and efficient transit modes to meet the needs of residents and visitors including seniors, disabled persons, and transit-dependent persons.

Transit System Policy 5.2
Cooperate with the North County Transit District (NCTD) to increase the use of transit by maintaining services within the city that are timely and cost effective; establishing criteria for transit improvements (including grade separated rail crossings); locating routes and access points that are responsive to growth patterns; developing short and long-range service plans; and preserving the rights-of-way for commuter rail lines.

Transit System Policy 5.3
Coordinate with the NCTD to establish transit stops in areas of concentrated activity such as near senior housing projects, medical facilities, major employment centers, and mixed use areas.

Transit System Policy 5.4
Coordinate with the NCTD to accommodate transit centers and major stops with adequate bicycle and pedestrian access and secure bicycle storage where appropriate. Include facilities that are well designed, provide appropriate lighting and are safe, comfortable, and attractive.

Transit System Policy 5.5
Cooperate with NCTD, Caltrans, SANDAG, and other appropriate agencies to expand the commuter rail system. This shall include the appropriate location of stops, service schedules, bus routes and parking needs.

Transit System Policy 5.6
Work with the High Speed Rail Authority (HSRA), SANDAG, and other pertinent agencies to coordinate the development of a high-speed rail station and ensure its compatibility with adjoining uses and connectivity with local pedestrian, bicycle, transit, and automobile transportation systems.

Transit System Policy 5.7
Provide connections to transit stations by identifying roadway, bikeway, and pedestrian way improvements to be constructed within ½ mile of every major transit station.

Transit System Policy 5.8
Require that new developments incorporate transit-supporting facilities into the project design, where appropriate.

Transit System Policy 5.9
Construct, when appropriate, transit facilities such as bus pullouts on Prime Arterials, Major Roads, and Collector streets.

Transit System Policy 5.10
Provide safe and efficient multimodal access to and within transit stations, complying with ADA standards.

Transit System Policy 5.11
Evaluate the transportation needs of seniors, including paratransit service for seniors and disabled persons.

6. Transportation Demand Management (TDM)

TDM Policy 6.1
Develop and implement Transportation Demand Management (TDM) and complete street programs to reduce automobile travel demand that may include, but shall not be limited to: preparing site-specific peak-hour traffic-management plans; promoting ride-sharing and carpooling for residents and non-residents through preferential parking; providing park-and-ride facilities adjacent to the regional transit system; and supporting transit subsidies.

Crews installing a new traffic signal on Grand Avenue

Traffic Engineers programming signal synchronization system to manage traffic flow

TDM Policy 6.2
Encourage employers to offer programs, facilities, and incentives to their employees that would promote carpooling, transit use, and use of other alternative modes.

TDM Policy 6.3
Establish a TDM program for city employees that promote car-pooling, use of transit, and use of alternative modes of transportation.

7. Street Network

Street Network Policy 7.1
Plan, design, and regulate roadways in accordance with the street classification in the Circulation Element Diagram.

Street Network Policy 7.2
Allow Specific Alignment Plans for unique situations when standard widening is not adequate for future needs or when special conditions / constraints exist which require a detailed implementation plan.

Street Network Policy 7.3
Strive to maintain LOS C or better throughout the city except for within the urban core. Establish LOS D as the threshold for determining significant impacts and appropriate mitigation. Due to physical design characteristics, implementation of pedestrian-oriented 'smart growth' and Complete Streets design improvements, high density infill areas, environmental resource considerations, existing development, freeway interchange impacts, and incomplete system improvements, alternative levels of service may be appropriate for isolated areas as determined by the city.

Street Network Policy 7.4
Provide adequate traffic safety measures on all new roadways and strive to provide adequate traffic safety measures on existing road-ways (subject to fiscal and environmental considerations). These measures may include, but not be limited to, appropriate levels of maintenance, proper street design, traffic control devices (signs, signals, striping), street lighting, and coordination with the school districts and other agencies.

Street Network Policy 7.5
Provide high priority to funding capital improvement projects that complete links to the circulation system, relieve existing congestion in the urban core as defined by the city, correct unsafe conditions on existing streets and/or improve the regional circulation system.

Street Network Policy 7.6
Ensure that identified mobility system improvements are developed in a timely manner to meet the needs of the community.

Street Network Policy 7.7
Require new development projects to analyze local traffic impacts, and construct and implement the improvements required for that development.

Street Network Policy 7.8
Require new development projects to analyze traffic impacts on the regional transportation system, and pay a fair-share contribution to regional transportation improvements.

Street Network Policy 7.9
Synchronize traffic signals where feasible and appropriate to facilitate the flow of through traffic, thus enhancing the movement of vehicles and goods through the city while reducing fuel consumption and air pollution.

Street Network Policy 7.10
Implement street beautification programs to improve the visual quality and character of roadway corridors and provide a distinct identify for key gateways into the city.

Street Network Policy 7.11
Enhance the safety and efficiency of accessing the public street network from private properties by:

a) Controlling driveway access locations on Prime Arterials and Major Roads;

b) Installing medians and access controls on Collector Roads and higher classifications;

c) Maintaining minimum distances from intersections for accessing Prime Arterials, Major Roads, and Collector streets;

d) Consolidating driveway access; and,

e) Encouraging interconnected parking lots.

Citywide synchronized traffic signals facilitate through-traffic reduce fuel consumption and pollution (At the intersection of Broadway and Highway 78)

8. Parking

Parking Policy 8.1
Ensure off-street and on-street parking is adequate, considering access to transit facilities and mix of uses in the surrounding area.

Parking Policy 8.2
Consider reducing parking requirements in the downtown and at transit stations as transit ridership increases over time due to increased development intensities and a broader mix of land uses.

Parking Policy 8.3
Encourage parking in shared surface lots or parking structures to make the most efficient use of land.

Parking Policy 8.4
Maximize shared parking opportunities for uses with varied peak parking periods.

9. Traffic Calming

Traffic Calming Policy 9.1
Reduce congestion in areas surrounding schools, parks, and other activity centers by applying effective traffic management solutions.

Traffic Calming Policy 9.2
Encourage the use of innovative methods for traffic control (such as roundabouts, curb extensions, and traffic circles) that add character and create opportunity for improved aesthetics while effectively managing traffic.

Traffic Calming Policy 9.3
Protect residential neighborhoods from cut-through traffic and other traffic-related issues by implementing appropriate traffic calming measures.

Widening corners along truck routes facilitates turning movements for large vehicles (Grand Avenue and Rose Street intersection)

10. Goods and Services Transport

Goods and Services Transport Policy 10.1
Designate official truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses.

Goods and Services Transport Policy 10.2
Minimize noise and other impacts of truck traffic and deliveries in residential and mixed-use neighborhoods by limiting when these can occur.

Goods and Services Transport Policy 10.3
Discourage use of public streets for freight loading and unloading.

Goods and Services Transport Policy 10.4
Encourage businesses to schedule deliveries at off-peak traffic periods.

Goods and Services Transport Policy 10.5
Work with railroad operators to facilitate the rail transport of goods through the city.

Goods and Services Transport Policy 10.6
Work with railroad operators to coordinate freight train schedules to occur during off-peak travel hours.

11. Aviation

Aviation Policy 11.1
Monitor private and public airport related activities in the vicinity of the Planning Area to ensure compatibility with General Plan land uses and policies.

Aviation Policy 11.2
Require all development in the General Plan boundary located within the Airport Influence Area of the Airport Land Use Compatibility Plan (ALUCP) for the McClellan-Palomar Airport to be located and constructed in conformance with the ALUCP.

Aviation Policy 11.3
Review San Diego International and McClellan-Palomar Airports' expansion plans to ensure their range of aviation services meets the present and future needs of residents and the business community.

Aviation Policy 11.4
Collaborate with Palomar/Pomerado Health District regarding emergency medical helicopter services to facilitate access and minimize disruption to area residents.

12. Water System

GOAL 2: Adequate and sustainable infrastructure and water supply to serve a community that values and conserves water.

Water System Policy 12.1
Regularly review and update a Water Master Plan that establishes service standards; defines needed improvements to systematically expand water distribution, delivery, treatment, and storage concurrent with planned growth; and incorporates best practices to sustain scarce water resources.

Water System Policy 12.2
Maintain adequate water supply, treatment, and distribution capacity to meet normal and emergency situations to provide a minimum standard of 540 gallons per day per household. This standard should be periodically reviewed and modified by updates to the Water Master Plan to account for changes in water supply, demands, and conservation practices.

Water System Policy 12.3
Design the water supply and distribution system, and regularly review, update and collect water connection fees to support the development and ongoing maintenance and operations of each service area at the intensity permitted by the General Plan.

Water System Policy 12.4
Ensure that the Escondido-Vista Water Treatment Plant and its supporting infrastructure provides sufficient capacity to accommodate the growth permitted by the General Plan.

Water treatment equipment at the city's facility near Lake Dixon

Water System Policy 12.5
Require new development to provide adequate water facilities and/or finance the costs of improvements necessary to serve the demands created by the development and/or anticipated growth determined by the city, as appropriate. Establish a system for the reimbursement of construction costs for backbone water system improvements in master planned development projects involving multiple phases and developers.

Water System Policy 12.6
Permit the use of assessment districts or similar mechanisms to finance backbone water infrastructure improvements.

Water System Policy 12.7
Require any new water facilities to be constructed to city standards.

Water System Policy 12.8
Prioritize water infrastructure improvements in target land use areas as identified in the Land Use Element.

Water System Policy 12.9
Employ best practices to maintain the highest possible energy efficiency in the water treatment plant and infrastructure system to reduce costs and greenhouse gas emissions.

Water System Policy 12.10
Implement federal and state drinking water quality standards for public water infrastructure facilities and private development projects.

Water System Policy 12.11
Continue to implement water conservation programs, such as requirements for water efficient landscaping and enforcement of water wise regulations, and amend as appropriate to reflect evolving technologies and best practices.

Water System Policy 12.12
Require new development to incorporate water conservation techniques into building and site design incorporating such elements as water efficient fixtures (e.g., low flow shower heads); drought-tolerant landscape, permeable hardscapes, and on-site stormwater capture and re-use facilities.

Water System Policy 12.13
Continue to use and explore opportunities to increase the use of recycled water in the city.

Water System Policy 12.14
Educate Escondido's residents and businesses about the importance of water conservation and reclamation and techniques and programs to achieve these goals.

13. Wastewater System

GOAL 3: Provision of adequate and sustainable wastewater infrastructure to serve residents, businesses and property

Wastewater System Policy 13.1
Regularly review and update the Wastewater Master Plan to establish service standards, define needed improvements that systematically expand wastewater collection and treatment facilities concurrent with planned growth; and incorporate best practices that sustains and prevents pollution of water resources.

Wastewater System Policy 13.2
Ensure that the Hale Avenue Resource Recovery Facility (HARRF) and supporting infrastructure provide sufficient capacity to meet normal and emergency demand for existing and future growth based on a minimum standard of 250 gallons per day for each residence served by the HARRF. This standard should be periodically reviewed and modified by updates to the Wastewater Master Plan to account for changes in sanitary waste generation and conservation practices.

Wastewater System Policy 13.3
Design the wastewater system to support development of properties at the intensities specified by the General Plan Land Use Plan.

Wastewater System Policy 13.4
Regularly review, update and collect wastewater connection fees for new development to be serviced by the city's wastewater system.

Wastewater System Policy 13.5
Require new development to provide adequate wastewater facilities and finance the costs of improvements necessary to serve the additional demands created by the development and /or anticipated growth determined by the city, as appropriate. Establish a system for the reimbursement of construction costs for backbone wastewater system improvements in master planned development projects involving multiple phases and developers.

Wastewater treatment equipment at the Hale Avenue Resource Recovery Facility (HARRF)

Wastewater System Policy 13.6
Permit the use of assessment districts or similar mechanisms to finance backbone wastewater infrastructure improvements.

Wastewater System Policy 13.7
Require any new wastewater system facilities be constructed to city standards.

Wastewater System Policy 13.8
Prioritize the construction of wastewater infrastructure improvements to serve target land use areas as identified in the Land Use Element.

Wastewater System Policy 13.9
Collect a "per-unit" wastewater connection fee for all new housing units required to be serviced by the city's wastewater system.

Wastewater System Policy 13.10
Design wastewater facilities to implement practices that avoid sewage spills affecting stream courses and reservoirs.

Wastewater System Policy 13.11
Explore alternative wastewater technologies and best practices that reduce the amount of wastewater requiring treatment. Require new development to implement appropriate and feasible systems.

Wastewater System Policy 13.12
Employ best practices to maintain the highest possible energy efficiency to reduce costs and greenhouse gas emissions of the Hale Avenue Resource Recovery Facility (HARRF) and other wastewater system facilities.

Wastewater System Policy 13.13
Maintain a buffer zone around the HARRF limiting the amount of new residential development, and permit compatible non-residential development that utilizes site planning and architectural techniques that minimize public exposure to odors and health risks.

14. Storm Drainage

GOAL 4: Provision of adequate and sustainable infra-structure that is environmentally sensitive to serve residents, businesses, and property.

Storm Drainage Policy 14.1
Regularly review and update the Master Drainage Plan to establish standards for each drainage basin, define needed improvements to accommodate stormwater runoff on full development of the drainage basin at the intensities specified by the Land Use Element, and incorporate best practices to prevent pollution of water resources and sustain natural habitats.

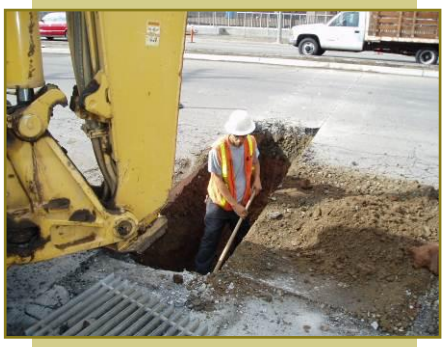
Storm Drainage Policy 14.2
Improve the existing storm drainage system by correcting identified deficiencies.

Storm Drainage Policy 14.3
Levy Drainage Fees for subdivided and developed land to finance drainage improvements. Periodically review and adjust for inflation, construction costs, and changes in land development intensities and timing.

Storm Drainage Policy 14.4
Require new development to create a mechanism to finance and fund ongoing maintenance of stormwater facilities.

Storm Drainage Policy 14.5
Require new development to prepare drainage studies and improvement plans that demonstrate no net increase in stormwater runoff and compliance with adopted stormwater plans.

Storm Drainage Policy 14.6
Require new development to minimize alterations to natural landforms and the amount of impervious surfaces to minimize erosion, while encouraging implementation of low impact development measures and the maximum use of natural drainage ways, consistent with sound engineering and best management practices.



Crews installing a new storm drain on Mission Avenue

Directing runoff to vegetated areas with absorbent soils filters pollutants and reduces off-site flows

Storm Drainage Policy 14.7

Require new development and redevelopment to minimize storm water runoff and contaminants entering drainage facilities by incorporating low impact development measures and other on-site design features such as bio-swales, retention ponds, and cisterns for storage and infiltration, treatment of flows, and appropriate best management practices (BMPs) consistent with the National Pollution Discharge Elimination System (NPDES).

Storm Drainage Policy 14.8

Mitigate negative impacts to adjacent surrounding land uses from pertinent drainageway corridors by incorporating appropriate structural and non-structural best management practices (BMPs). BMP's may include the use of screening, landscaping, or open space setbacks.

Storm Drainage Policy 14.9

Construct nonstructural flood protection methods that incorporate vegetation to protect and stabilize land areas as an alternative to constructing concrete channels.

Storm Drainage Policy 14.10

Promote the joint use of stormwater drainage facilities for recreation and conservation purposes, such as integrating sports fields in detention basins, or trails along drainage courses.

Storm Drainage Policy 14.11

Maintain flood control channels and storm drains through periodic dredging, repair, desilting, and clearing to prevent losses in effective use, subject to approval from appropriate state and federal agencies.

Storm Drainage Policy 14.12

Design stormwater facilities to minimize the need for frequent maintenance.

Storm Drainage Policy 14.13

Design and maintain detention facilities that are environmentally sustainable and compatible with surrounding uses to maximize vector control, manage flows, and maximize opportunities for conservation of water.

15. Solid Waste and Recycling

GOAL 5: Reduction in the generation and disposal of solid waste.

Solid Waste and Recycling Policy 15.1
Regularly review and update the city's mandatory recycling ordinance to reflect changes and new technologies regarding appropriate recyclable materials acceptable in the city's recycling program.

Solid Waste and Recycling Policy 15.2
Support efforts to maintain adequate solid waste facilities and services by working with local service providers of solid waste collection, disposal, and recycling.

Solid Waste and Recycling Policy 15.3
Regularly review and update the city's participation in the County-wide Integrated Waste Management Plan, including the Source Reduction and Recycling Element to promote increased recycling, composting, source reduction, and education efforts throughout the community, as well as new diversion technologies designed to reduce the amount of solid waste sent to landfills.

Solid Waste and Recycling Policy 15.4
Continue to support the residential, commercial, industrial and construction / demolition recycling programs to minimize the solid waste stream to landfills.

Solid Waste and Recycling Policy 15.5
Encourage and consider requiring non-residential uses and businesses to participate in the city's recycling program.

Solid Waste and Recycling Policy 15.6
Encourage, and consider requiring, recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings.

Solid Waste and Recycling Policy 15.7
Continue to coordinate with approved services providers and businesses to recycle universal waste (electronic components, batteries, fluorescent lights, etc.) and to provide convenient collection and drop off locations in a manner that ensures safe and responsible collection, processing and disposal.

Solid Waste and Recycling Policy 15.8
Encourage and promote the use of recycled materials in residential and non-residential applications, including construction and building materials, office supplies, and equipment. Continue the city's purchase of recycled materials and supplies outlined in the Recycled Products Purchasing Policy.

Managing waste stream and separating recyclables at Escondido's EDCO facility

Solid Waste and Recycling Policy 15.9
Support and promote the establishment of local businesses that manufacture, distribute, and sell products using recycled materials.

Solid Waste and Recycling Policy 15.10
Sponsor clean-up events in which volunteers and community organizers help pick up litter along streams, at parks, in neighbor-hoods, and other public areas.

Solid Waste and Recycling Policy 15.11
Allow small beverage recycling facilities collection facilities in commercial and industrial areas, provided adverse circulation, parking, and visual impacts can be mitigated.

Solid Waste and Recycling Policy 15.12
Allow sites for solid waste transfer stations and / or Material Recovery Facilities in areas designated for General Industrial, provided circulation, visual, and noise impacts do not adversely affect adjacent uses.

Solid Waste and Recycling Policy 15.13
Continue to divert green waste from landfills and support the establishment of composting facilities that operate in a manner that assures safe and responsible collection, processing, and disposal practices.

16. Energy

GOAL 6: An increased use of renewable energy sources, and improved energy conservation and efficiency.

Energy Policy 16.1
Monitor federal, state and regional energy policies and lobby for appropriate changes that benefit the community.

Energy Policy 16.2
Continue to work with local utility providers to ensure that adequate electricity and natural gas services and facilities are available for new and existing development.

Energy Policy 16.3
Implement energy conserving land use practices that include compact development, provision of bikeways and pedestrian paths, and the incorporation of transit routes and facilities.

Energy Policy 16.4
Encourage site and building design that reduces exterior heat gain and heat island effects (tree planting, reflective paving materials, covered parking, cool roofs, etc.).

Energy Policy 16.5
Require, to the extent feasible, building orientations and landscaping that use natural lighting to reduce energy demands.

Energy Policy 16.6
Evaluate and amend appropriate codes and ordinances in order to facilitate and encourage the installation of renewable energy systems and facilities (solar, wind, hydro-power, geothermal, and bio-mass), where appropriate, for all development.

Energy Policy 16.7
Install energy-efficient lighting, appliances and alternative-energy infra-structure, such as solar energy panels, within all city facilities, as feasible.

Energy Policy 16.8
Coordinate with service providers to increase energy efficiency by promoting the retrofit and renovation of existing buildings through energy rebates and incentives.

Energy Policy 16.9
Coordinate with regional and local energy providers to increase energy conservation through public education programs.

Energy Policy 16.10
Encourage energy production facilities that directly benefit the community and pursue the direct purchase of energy to assure supply and lower prices that guarantee energy to the city.

Energy Policy 16.11
Ensure that local power plants utilize state-of-the-art designs to minimize emissions and encourage alternate technologies.

Energy Policy 16.12
Review power plant submittals to ensure they do not result in significant individual or cumulative environmental impacts.

Energy Policy 16.13
Require new utility lines to be constructed underground, and along existing utility corridors, when feasible.

Electric air compressors formerly used at Lakes Dixon and Wohlford to circulate and stabilize water temperatures have been replaced by solar powered facilities providing high energy savings that also improves water quality and fish habitat

17. Telecommunications

GOAL 7: Quality communication systems that enhance economic viability, governmental efficiency, and equitable access for all.

Telecommunications Policy 17.1
Work with service providers to ensure the access and availability of a wide range of state-of-the-art telecommunication systems and services for households, businesses, institutions, and public agencies throughout the community.

Telecommunications Policy 17.2
Work with utility companies to retrofit areas that are not served by current telecommunication technologies and promote strategic long-range planning of telecommunication facilities for newly developing areas, as feasible.

Telecommunications Policy 17.3
Encourage local industries, higher educational institutions, and other entities to support innovation in the design and implementation of state-of-the-art telecommunication technologies and facilities.

Telecommunications Policy 17.4
Establish requirements for the incorporation and accessibility of state-of-the-art telecommunication systems and services (e.g., internet) for public use in public buildings (e.g., libraries) and support the development of informational kiosks in public places and streetscapes (e.g., parks, plazas, shopping malls).

Telecommunications Policy 17.5
Establish requirements for the installation of state-of-the-art internal telecommunications technologies in new large-scale planned communities, and office and commercial developments (e.g., wiring of all new housing and businesses).

Telecommunications Policy 17.6
Encourage the installation of telecommunications systems (e.g., internet) in every city household to facilitate resident access to information about public services, transit, emergencies, and other information.

Telecommunications Policy 17.7
Continue to use telecommunications or new technologies to enhance the performance of internal city operations and the delivery of public services.

Telecommunications Policy 17.8

Require compatible colocation of telecommunication facilities that are designed in a manner to minimize visual impacts on surrounding uses.

Telecommunications Policy 17.9

Work with utility companies to provide opportunities for siting telecommunications facilities on city-owned property and public right-of-ways.


Escondido
GENERAL PLAN