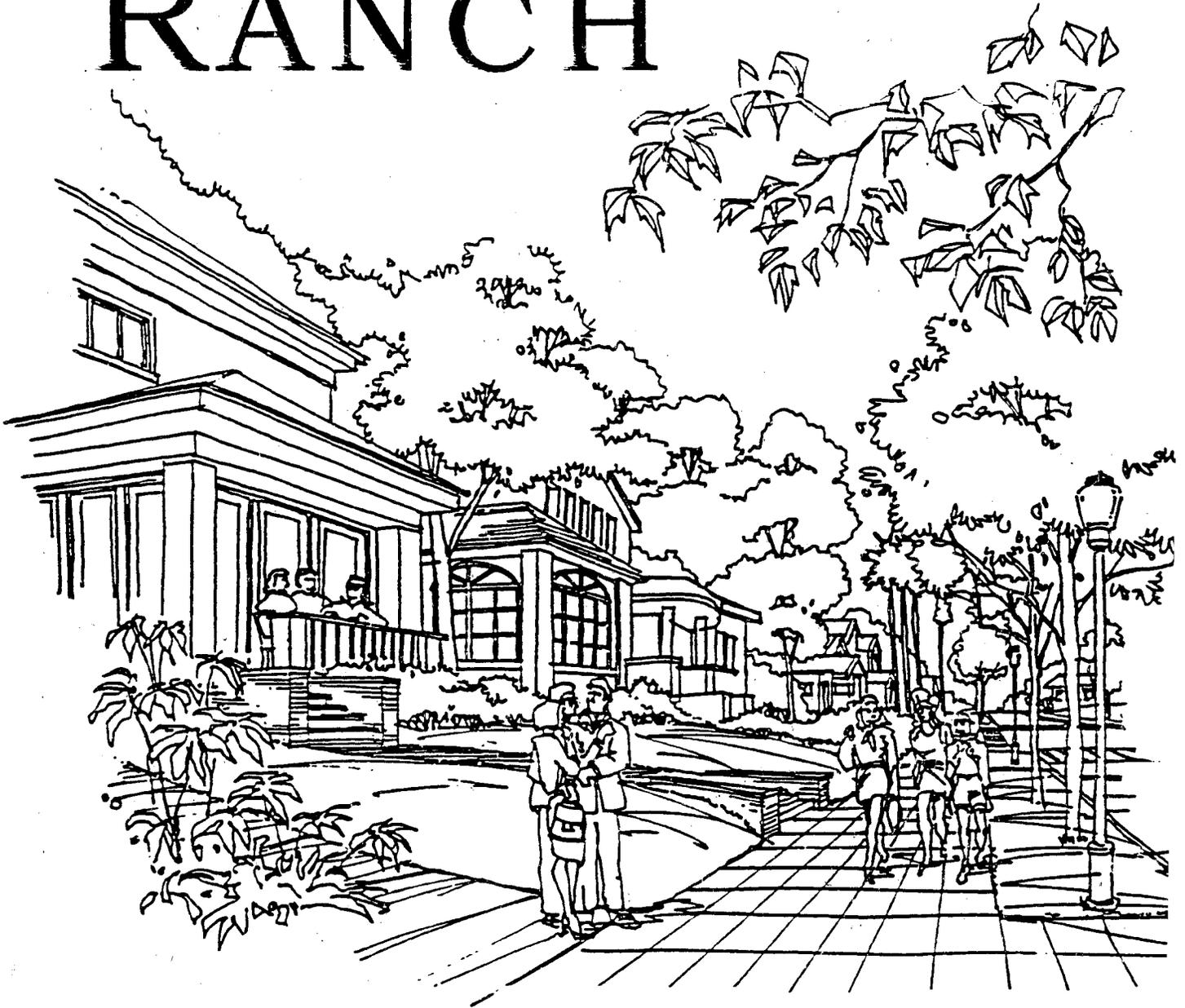


OTAY RANCH



CITY OF CHULA VISTA
COUNTY OF SAN DIEGO

FACILITY IMPLEMENTATION
PLANS

**COUNTY OF SAN DIEGO
Certificate of Adoption**

I hereby certify that this is a true and correct copy of the Otay Ranch Facility Implementation Plan adopted by the San Diego County Board of Supervisors on the 28th day of October, 1993.

This document was adopted as part of Board Policy I-109, which is intended to implement various policies of the Otay Subregional Plan, Volume 2 (GPA 92-04).



Brian P. Bilbray, Chairman

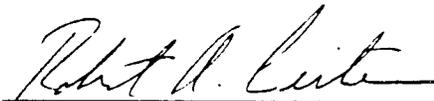
Attest:



Thomas J. Pastuszka,
Clerk of the Board

DOCUMENT CERTIFICATION

I hereby certify that the contents of this document incorporate represents the final version of the Facility Implementation Plan, which constitutes a Support Document to and a part of the approved General Development Plan for the Otay Ranch Project (PCM-90-03) as duly passed, approved and adopted by the City Council of the City of Chula Vista on October 28, 1993.

A handwritten signature in cursive script, reading "Robert A. Leiter".

Robert A. Leiter, Director of Planning

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Drainage Facilities

I. Threshold

Storm water flows and volumes shall not exceed Engineering Standards of the governing land use jurisdiction.

II. Goals, Objectives, Policies and Standards

Goal: Provide protection to the Otay Ranch Project Area and surrounding communities from fire, flooding and geologic hazards.

Objective: Individual projects will provide necessary improvements consistent with the National Flood Insurance Program, Drainage Facility Implementation Plan and Engineering Standards.

Policy: Storm drain runoff should be managed to minimize water degradation, to reduce the waste of fresh water, to enhance wildlife and to reduce the impact of the erosion.

Objective: Storm water flows shall be controlled and conveyed based on statistical models and engineering experience as specified in City Engineering Standards, consistent with NPDES Best Management Practices.

Objective: Reduction in the need for construction of flood control structures.

Policy: Development within floodplains will be restricted to decrease the potential for property damage and loss of life from flooding and to avoid the need for channels and other flood control facilities.

Objective: Preservation of the floodplain environment from adverse impacts due to development.

Policy: The use of natural channels will be required except in cases where no less environmentally damaging alternative is appropriate.

Implementation Measure: Ensure that the design, siting and location of new development does not create a need for flood control facilities that result in negative environmental impacts.

Policy: The costs of constructing needed flood control facilities shall be shared by property owners who create the need for, and benefit from, the facilities.

Objective: Require on-site detention of storm water flows such that existing downstream structures will not be overloaded.

Policy: Require measures to decrease the adverse impacts created by increased quantity and degradation in quality of runoff from urban areas.

Policy: Comply with the appropriate jurisdiction's Flood Insurance Program.

III. Existing Conditions

The Otay Ranch Master Drainage Study¹ identifies existing hydrologic conditions, potential impacts and the extent of flood control and drainage facilities needed for Otay Ranch. Drainage and flood control design criteria are established by the San Diego County Department of Public Works, Flood Control Division, in the unincorporated area, with adjustments for the City of San Diego or City of Chula Vista, where appropriate.

A. Characteristics of the Watersheds

Poggi Canyon Watershed: Approximately 3.28 square miles of the upstream watershed was reviewed. The basin flows westward, leaving the Otay Ranch and joining the Otay River west of the property. The basin area reviewed is generally agricultural lands between the proposed Sunbow and EastLake developments.

Telegraph Canyon Watershed: The portion of the Telegraph Canyon basin reviewed is approximately 3.73 square miles and is the most upstream portion of the watershed. The City of Chula Vista is presently improving the upper reaches of the Telegraph Canyon Channel, designed to convey 100-year storm run-off flows. Portions of the lower reaches of the Telegraph Canyon Channel, such as the stretch between 4th Avenue and the bay, have not yet been improved to convey the 100 year storm flows. The area north of the canyon is primarily developed with a variety of residential uses and the southerly portion of the basin is undeveloped, with annual agricultural and cattle pasturing activities. The undeveloped portion of the basin is characterized by gentle north-westerly

sloping ground with swales or small canyon valleys eventually rising to a flat terrace (mesa) at the southerly ridge.

Otay River Watershed: The total area of the Otay River watershed is approximately 140 square miles. The portion of the watershed reviewed is the area upstream of the westerly boundary of Otay Ranch consisting of approximately 124.7 square miles. The watershed can be separated into two major sections, the mountainous portion, upstream of Savage Dam; and the canyons, valleys and plains (mesas) below the dam.

The upper 99 square miles of the watershed area is controlled by Savage Dam, which forms the Lower Otay Reservoir. This section of the basin consists of mountainous terrain underlain by igneous and metamorphic rocks. Soils in the upper reaches of the basin are rocky silty loams that are shallow and poorly developed. The geology of the area generally consists of eroded upland surfaces, with streams, broad valleys and coastal plain on which terraces (mesas) are prominent.

Little natural streamflow occurs, except during and immediately after rains, because climatic and drainage area characteristics are not conducive to continuous run-off. Streamflow increases rapidly in response to effective rainfall.

B. Design Standards/Regulatory Criteria

Computation of basin peak flows and development within floodplains are regulated by governmental policies and criteria. The following is a brief discussion of the policies or criteria established by the regulatory agencies:

1. Federal Emergency Management Agency Regulations

The Federal Emergency Management Agency (FEMA) regulates development in the floodplain in accordance with the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Through hydrologic and hydraulic analyses, FEMA defines "areas of special flood hazard" as the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year (Title 44, Code of Federal Regulations, Part 59, Subpart A). These areas are the "A" zone areas on a Flood Insurance Rate Map (FIRM).

2. Resource Protection Ordinances

The City and County of San Diego have enacted resource protection ordinances. These ordinances regulate development activities in wetland and floodplain areas. Wetland areas include a buffer zone around the wetland area. Floodplain areas include the floodway and the floodplain fringe. The floodway is as defined by FEMA, except the county specifically defines the floodway on the Otay River as that area necessary to pass the 100-year flood without increasing the water surface elevation more than 0.2 ft. The floodway fringe is the area within the floodplain that is not in the floodway.

3. City of Chula Vista

The City of Chula Vista, Public Works Department is responsible for ensuring that safe and efficient storm water drainage systems are provided concurrent with development in order to protect the residents and property within the city. The City of Chula Vista Public Facilities Plan, Flood Control Summary Report, March, 1989, shows 15 major drainage basins in Chula Vista. Eleven drainage basins are east of I-805 and will experience major development and subsequent changes in drainage conditions. The City's Drainage Master Plan analyzed current and future requirements for drainage facilities. The report details three alternative solutions for drainage in each basin.

4. Other Regulatory Agencies

National Pollutant Discharge Elimination System Program (NPDES)

In November 1990, the Environmental Protection Agency (EPA) adopted a complex set of regulations addressing the control and permitting of storm water runoff from both industrial and municipal separate storm water discharges. In California, the NPDES permitting power and responsibilities have been delegated to the State's nine regional water quality and control boards. The County of San Diego and the incorporated cities within the county, are covered by a general permit which was issued in 1990 and is valid for five years. It is the intent of the County and the cities to implement and maintain all NPDES permit requirements.

Pursuant to the new regulations, industrial and all other developments over 5 acres will be required to file for a permit. General requirements for storm water permits include descriptions of best management practices and control measures and quantitative analytical data obtained during storm events; as well as topographic maps, site drainage estimates and methods of storing raw materials on the site, which are already covered in the grading and erosion control permits. Requirements and control measures for storm water discharges within the county are being prepared by the County and are scheduled to be available to the public by late 1991 or early 1992.

Corps of Engineers (COE)

The COE administers Section 404 of the Clean Water Act. This section requires a permit for the placement of dredged or fill material in a navigable waterway. The term navigable waterway is somewhat misleading, since a permit is generally required for any watershed greater than 1 square mile. Related to land development activities, a 404 permit is required for any channel improvements or fill in the floodway fringe. The Environmental Protection Agency, Fish and Wildlife Service and various state environmental groups are usually requested to comment on a 404 permit and the proposed action to be taken by the COE. Therefore, the application for a 404 permit, which is typically a relatively simple process involving a relatively short form, can result in a much more complicated and involved interchange between a project proponent and various regulatory groups.

California Department of Fish and Game

The California Department of Fish and Game is required, by Section 1601 of the Fish and Game Code, to approve "...any project which will divert, obstruct or change the natural flow or bed, channel or bank of any river, stream or lake..." The method of approval is called a 1601 Streambed Alteration Agreement. Agreement applications are generally made subsequent to certification of the environmental documents.

The use of natural channels will be required, except in cases where no less environmentally damaging alternative is appropriate. The existing natural channels and water courses should be utilized as the major method of storm runoff conveyance in the watershed. Installation of man-made channels and

underground facilities shall be specified only when other alternatives are not feasible.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents².

Runoff is affected by the land use (percent impervious), channel slope and soil type. This is the case whether the proposed land use is low density estate or mixed use suburban. It is affected most with the addition of pipe and lined channels, where the flow time to peak is reduced and the peak runoff rate is generally much higher. Peak runoff amounts have been estimated for the existing and ultimate land use conditions within Otay Ranch. The amount of runoff calculated is based on approved design criteria for general plan purposes, but will need to be refined when more specific plans are developed that include local street and grading design.

Most of the property (all but approximately 2,650± acres) lies in the watershed of the Otay River. Telegraph Canyon drains directly to the San Diego Bay. Poggi Canyon flows westerly from the property before joining the Otay River. Approximately 218 acres of the project lies in the Otay Mesa basin and drains southerly toward the Tijuana River basin.

Upper and Lower Otay Reservoirs impound flows from the Proctor Valley and Dulzura Creek areas, respectively. Lower Otay Reservoir is used as a water supply facility for the City of San Diego.

A large trapezoidal flood control channel is under construction in Telegraph Canyon. Urban development plans control local drainage in streets or pipes to channels in the major drainage basins considered in this study. In rural areas, some of the local drainage can be allowed to sheet flow off the streets into the natural areas or natural channels. If the natural channels are too steep to avoid erosive velocities, then the major channels and many of the side canyons will require lining or other protection to reduce or eliminate erosion. Detention basins may be needed in isolated areas to reduce any significant estimated increase in peak storm flow.

The computed 100 year peak flows in this study have been compared to flows established by previous studies. The ultimate discharges developed in this study are based on the proposed land use in the Otay Ranch Plan. The criteria used in the computations is the SCS method as specified in the 1985 San Diego County Hydrology Manual. The flows established in this study are generally higher than those established by previous analyses. Sub-basin detention facilities will be required to control peak flows.

The demand generated at the build-out of Otay Ranch will require the construction of new drainage control facilities consistent with those outlined by the City of Chula Vista Public Facilities Plan, Flood Control Summary Report. These facilities include additional channelization, concrete box culverts, detention sedimentation basins, energy dissipaters and drainage conveyance systems. Additional detail and village by village inventories of storm drainage structures are available in the Otay Ranch Drainage Infrastructure Report, May 1990 by Church Engineering, Inc.

V. Facilities

As the future peak flows increase with proposed new development, it is recommended detention facilities be provided to detain these excess flows so that peak runoffs and velocities in the main channels do not exceed the existing storm conditions. This will eliminate flooding due to increased discharge as a result of urbanization.

The criteria to detain storm water discharges from new development to predeveloped quantities, however, is based on the assumption that the channels and crossing structures downstream can handle the existing storm runoffs. Existing downstream facilities in the Poggi, Telegraph Canyon and Otay Valley drainage basins have been identified as being inadequate to handle existing storm runoffs. Basin-wide improvement districts should be established (as has been done for the Telegraph Canyon drainage basin) to improve the existing deficiencies in a timely manner. Recommended improvements for existing urban areas could be facilitated by local government agencies through the establishment of subzones for funding installation and maintenance costs with tax bases adequate to service bond issues for such improvements. Feasibility of obtaining financial assistance through federal and state programs should also be

considered as a potential funding source for drainage improvements in existing urban areas.

VI. Processing Requirements

A. SPA Requirements

- Basin specific drainage improvement plan will be submitted with the first SPA impacting each drainage basin and the plan will also address the adequacy of existing facilities.
- Specific facility site(s) identified and reserved.
- Equipment needs identified.
- Alternative financing methods refined.
- Timing of construction consistent with GDP/SRP project requirements.

B. Tentative Map Requirements

- Conditioned to provide drainage improvements.
- Funding identified.
- Identify easements for dedication.

C. Final Map Requirements

- Funding assured.
- Implement conditions.

D. Building Permit

- Payment of impact fee (if established).

Otay Ranch Facility Implementation Plan Drainage Facilities

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- 1 Otay Ranch Master Drainage Study by Church Engineering, August, 1991; Otay Ranch Master Drainage Study by Church Engineering, May 7, 1990; Otay Ranch Drainage Infrastructure by Church Engineering; May, 1990; and Drainage and Flood Control Plan for the Development of Otay Ranch by VTN Southwest, Inc., March 6, 1990.
 - 2 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Sewerage Facilities

I. Threshold

Provide a healthful and sanitary sewerage collection and disposal system for the residents of Otay Ranch, including a system designed and constructed to use reclaimed water and ensure that sewer connections not exceed capacity.

II. Goals, Objectives, Policies and Standards

Goal: Provide a healthful and sanitary sewer collection and disposal system for the residents of Otay Ranch and the region, including a system designed and constructed to accommodate the use of reclaimed water.

Objective: The ongoing planning, management and development of sewerage conveyance, treatment and disposal facilities to adequately meet future demands.

Policy: Land use planning will be coordinated with sewerage system planning, which is the responsibility of facility providers.

Implementation Measure: Work with the applicable sewer agencies to obtain their input on the impact of proposed land uses changes.

Implementation Measure: Phase development with the extension/expansion of sewerage facilities.

Implementation Measure: Furnish data to the facility providers about planned development.

Implementation Measure: Work with sewer service agencies to provide recycling and disposal alternatives for sludge materials.

Implementation Measure: Site sewerage facilities in the locations most suited to the needs of present and projected residents.

Policy: Ensure that the Otay Ranch Project will not use all available regional facility capacity, such as sewer, water and roads, and thus compromise the ability of other South County and East County parcels to develop as planned.

Implementation Measure: Sewage flows and volumes shall not exceed applicable Engineering Standards.

Implementation Measure: Secure letter of availability for sewer service from the applicable sewer district before a subdivision map can record.

Implementation Measure: Require, as a condition of development approval, that projects requiring sewer service annex to the special district or jurisdiction responsible for providing the service.

Implementation Measure: Prior to the issuance of a permit for building or grading a site in preparation for construction, require permanent commitment to serve from the applicable sewer district.

Policy: The placement of new septic systems will be controlled to ensure the health and safety of the public.

Implementation Measure: Avoid placement of septic systems in areas where soils are too dense or where leachate may contaminate groundwater or surface water.

Objective: Assure that wastewater treatment plants are consistent with sewer master plans.

Policy: Ensure that wastewater treatment plants are properly located, meet the sewer needs of the project, do not cause premature urbanization, create no unmitigable environmental effects, and minimize the need for sewer pump stations.

Objective: Sewage disposal systems should maximize the provision and utilization of reclaimed water.

Policy: Implement development regulations that require water conservation, wastewater reclamation, and drought-tolerant landscaping requirements.

III. Existing Conditions

A. Characteristics of the Drainage Basin

There are three major drainage basins on the Otay Ranch property which drain toward the west. These basins are the Telegraph Canyon Basin, the Poggi Canyon Basin and the Otay River Valley Basin. The City of Chula Vista has existing facilities which serve all three basins. The City of San Diego also has an interceptor sewer which serves the Otay River Valley Basin.

Telegraph Canyon Basin: The Telegraph Canyon Interceptor gravity sewers the existing drainage basin. However, there are plans to pump portions of the Salt Creek Basin and the Otay Lake Basin into Telegraph Canyon since this sewer extends farther east than any other interceptors in the City of Chula Vista. Willdan Associates prepared an improvement and financing plan for the Telegraph Canyon Sewer Basin, which includes ultimate flows from Otay Ranch and the associated improvements.

Poggi Canyon Basin: The existing Poggi Canyon interceptor is not able to handle ultimate projected flows from this basin. In order to meet the projected flows in this basin, either a new interceptor must be constructed across the full length of the basin or a combination interceptor/pump system will be needed. If the Sunbow project develops, ultimate sized facilities will be constructed to handle flows from Otay Ranch across the Sunbow project. Downstream improvements may be required to handle ultimate capacity for the Otay Ranch.

City of San Diego Otay River Valley Interceptor: The majority of the wastewater generated by the Otay Ranch project will eventually drain to the Otay River Valley Interceptor, which is owned by the City of San Diego. While ultimately it will accommodate the City of San Diego flow, on an interim basis it may be made available to convey flow to the main Metro Interceptor. The City of San Diego Otay Valley Interceptor receives wastewater flows generated from Otay Mesa. These flows should be considered when evaluating wastewater disposal options for Otay Ranch.

B. Wastewater Treatment - Jurisdictional Options

At the present time, the San Diego Metropolitan Sewage System serves the entire South County Area. The formation of a new sanitation district and construction of a treatment plant are being evaluated for the East Otay Mesa Area. The Clean Water Program for Greater San Diego has a conceptual Master Plan of Water Reclamation and Reuse. This July 1989, report proposes water reclamation plants in the Otay Mesa and South County area with an ocean outfall to serve both plants, as well as a secondary wastewater treatment plant to be built by the Federal Government along the International Border. The latest planning efforts by the Clean Water Program call for the construction of a water reclamation plant in the Otay River Valley around the year 2000.

1. City of Chula Vista

The City of Chula Vista has existing Metro capacity and interceptors which could be utilized within the early phases of the project. The reclamation plant in the Otay River Valley could be built as a City of Chula Vista plant, owned and operated by the City of Chula Vista. The City of Chula Vista could also own capacity rights, while the plant itself would be owned and operated by the Metro entity. The Clean Water Program is communicating with the executive committee and the technical committees as needed to coordinate the planning process for the Otay River Valley Reclamation Plant.

2. Otay Water District

If Otay Ranch does not annex to the City of Chula Vista, it could obtain sewer service from the Otay Water District (a water district boundary map is included in the technical document). The Otay Water District is empowered under state law to provide sewer service and is providing such service to some areas of the Otay Water District. In order to provide the necessary capacity, the Otay Water District would need additional Metro capacity and/or treatment plant capacity in the Otay River Valley. The Otay Water District would either have to buy into the new San Diego Metro facilities or construct a reclamation plant in the Otay River Valley.

3. Other Options

A new sanitation district or other special district could be formed to provide sewer service to the project. Either of these new entities would have to buy into San Diego Metro capacity or construct a new reclamation facility in the Otay River Valley.

Sewer service can also be coordinated across jurisdictional boundaries to provide economic benefit to those served. Inter-jurisdictional service agreements or inter-jurisdictional transportation agreements are a commonly accepted practice to minimize the costs of public facilities.

Four alternatives for providing wastewater treatment for the Otay Ranch project were analyzed. These alternatives include purchasing treatment capacity from the San Diego Metropolitan Sewage System and construction of an independent treatment plant for the Otay Ranch project. A description of each of the alternatives follows. Each alternative assumes a complete gravity system and inter-jurisdictional agreements, where necessary.

Alternative 1 - Connection to Metropolitan: Alternative 1 consists of connecting the entire Otay Ranch project to San Diego Metropolitan facilities.

Alternative 2 - Construction of a Water Reclamation Facility: Under this alternative, a wastewater treatment facility would be constructed suitable for production of an effluent that could be used for reclamation. The solids would be sent to Metro for further processing.

Alternative 3 - Construction of a New Wastewater Treatment Facility with Solids Processing: Alternative 3 consists of a wastewater treatment facility with solids processing equipment. The facility would be sized for the Otay Ranch project only, and would be constructed on the property.

Alternative 4 - Construction of a Joint Facility with the County of San Diego: Alternative 4 is the same as Alternative 3, except the plant is expanded to handle the East Otay Mesa area of the County of San Diego and other areas of Chula Vista.

C. Design Criteria

The criteria for wastewater collection facilities were based on the City of Chula Vista standards. Where no standards were available from the City of Chula Vista, industry standards were utilized.

Flow Generation: An average flow of 280 gallons per day was used for low density residential units. An average flow of 2,500 gallons per day per acre was used for commercial and industrial acreage.

Gravity Sewers: All gravity sewers have been designed to convey peak wet weather flow. For pipes with a diameter of 12 inches and smaller, the sewers have been designed to convey this flow when flowing one-half full. For pipes with a diameter of 15 inches and larger, the sewers have been designed to convey peak wet weather flow when flowing three-fourths full by depth. The equation used to convert average day flow to peak wet weather flow is as follows:

$$Q_{\text{peak}} = 1.98 (Q_{\text{average}})^{0.908}$$

where Q is in million gallons per day (mgd).

Force Mains and Sewage Lift Stations: Sewage lift stations and force mains shall be designed as a unit with standby pumping capacity and emergency storage as required by the appropriate jurisdiction. Force mains and sewage lift stations shall comply with all reviewing and regulatory agencies' requirements and odor control facilities/requirements must be considered.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Based on the land use and the sewage generation factor, wastewater flows were estimated for each drainage basin. A summary of projected flows for each parcel is listed in the Wilson Engineering Study². The total sewage generation for Otay Ranch is estimated at 9.10 million gallons per day for average day flows.

V. Facilities

Two conveyance system alternatives for Otay Ranch were evaluated. The first alternative provides for pumping all flows back to the Otay River Valley. The second alternative allows the Poggi Canyon and Telegraph Canyon flows to drain directly into the Metro System.

Alternative 1: This alternative pumps flows from Telegraph Canyon and Poggi Canyon back to the Otay River Valley. Therefore, the total average daily flow of 9.1 mgd is conveyed to the Otay River Valley. This alternative requires separate piping in both Poggi Canyon and Telegraph Canyon to segregate project flows and isolate them so they can be conveyed to the Otay River Valley.

Alternative 2: This alternative provides for gravity flow through Poggi and Telegraph Canyons to the Metro Interceptor. Under this alternative, only 6.1 mgd of the total 9.1 mgd is conveyed to the Otay River Valley. The remaining 3.0 mgd is generated within the Telegraph Canyon and Poggi Canyon Basins. This alternative would require utilization and upgrading of existing City of Chula Vista pipelines.

The logical choice to provide sewer service to the project would be the City of Chula Vista. They have existing Metro capacity and conveyance facilities which could be utilized. If the project does not annex to the City of Chula Vista, other jurisdictional alternatives would need to be considered. Review of sewer plans and issuance of discharge permits are to be provided by the appropriate agency.

VI. Processing Requirements

A. SPA Requirements

- Identify phased demands of sewer trunk lines.
- Identify location of facilities for on-site improvements, including reclaimed water facilities.
- Provide estimated costs for all facilities.
- Identify financing methods.
- For septic systems, preliminary soils testing to determine both suitability and reasonable density.

B. Tentative Map Requirements

- Conditioned to provide on-site and off-site facility improvements by phase development.
- Identify easements for dedication.
- Obtain agreements to pay for permanent trunk line facilities outside of the basin.
- For septic systems, 100% percolation testing and system design approved by the Department of Health Services.
- Obtain agency capacity letter.

C. Final Map Requirements

- Post secured financing for improvements or construct facility improvements.
- Funding assured.
- Dedicate easements.
- Obtain will serve letter.

D. Building Permit

- Payment of impact fees (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

**Otay Ranch Facility Implementation Plan
Sewerage Facilities**

- 2 Otay Ranch Master Plan of Water and Sewage, October 30, 1989, Wilson Engineering and
Master Plan of Sewerage for Otay Ranch, October 30, 1993, Wilson Engineering.

Integrated Solid Waste Management

Otay Ranch Facility Implementation Plan Integrated Solid Waste Management Facilities

I. Threshold

Provide solid waste facilities and services which emphasize recycling of reusable materials and disposal of remaining solid waste so that the potential adverse impacts to the public health are minimized.

II. Goals, Objectives, Policies and Implementation Measures

Goal: Provide solid waste facilities and services which emphasize recycling of reusable materials and disposal of remaining solid waste so that the potential adverse impacts to public health are minimized.

Objective: Reduce the volume of waste to be landfilled by 30% by 1995 and by 50% by 2000.

Policy: Promote waste management techniques that are alternative to landfilling.

Policy: Utilize landfills primarily for wastes that cannot be recycled or processed and for the residual from processing facilities.

Implementation Measure: Consider public convenience when designing storage for solid waste recycling within Otay Ranch.

Implementation Measure: Include within Otay Ranch recycling and storage capacity for the waste generated by Otay Ranch residents and require residential, commercial and industrial projects to provide separated waste storage facilities.

Policy: Cooperate with regional programs to identify markets for recyclable goods and solid waste disposal sites to accommodate existing and future need, including disposal of inert materials and special wastes such as sludge and non-hazardous liquids.

Implementation Measure: Cooperate with agencies providing sewer service to identify appropriate recycling and disposal alternatives for sludge materials.

Policy: Cooperate with regional programs to identify sites appropriate for the disposal of waste products and waste residuals which cannot be recycled, converted to energy, or otherwise used.

Implementation Measure: Review discretionary projects planned for sites adjacent to the existing solid waste land fill for compatibility with the landfill site to minimize, or mitigate, the environmental impacts of sanitary landfills.

Policy: To support State and Federal legislation that encourages recycling, removes barriers to recycling, promotes funding for local recycling programs or promotes waste reduction.

III. Existing Conditions

San Diego County is facing its own solid waste management crisis, much like the State of California, in that its remaining landfill capacity is rapidly diminishing. According to the County's most recent Integrated Waste Management Plan, San Diego County will exceed its remaining landfill capacity between 1998 and 2011 (representing worst and best case scenarios). Because of this limited remaining landfill capacity, the County is attempting to site new landfills in the north, south, and east County areas. The County is considering two potential landfill sites within the boundaries of the Otay Ranch. These sites include a 185 acre site in Wolf Canyon that would accommodate 20 million cubic yards of waste material, and a 260 acre site in the North Otay Valley area that would accommodate 25 million cubic yards of waste material. These studies are ongoing and actual operations of these conceptual facilities are 5 to 7 years away. Because of this landfill shortfall, the County will be looking to cities, volunteer organizations, and developers to contribute toward finding solutions to this crisis.

The San Diego region generates about 4 million tons/year of solid waste, or about 1-1/3 tons/person. This is an increase of 40% over the rate of waste generation in 1980. Landfills serving the region are the responsibility of the County of San Diego (San Marcos, Otay, Sycamore, Ramona, Borrego) and the City of San Diego (Miramar). The Otay Landfill serves the Otay Ranch and surrounding communities.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Otay Ranch Facility Implementation Plan Integrated Solid Waste Management Facilities

The demand generated for landfill space by the Otay Ranch will be significant, however, and while it can be reduced by utilizing an integrated waste management policy, the need for a new landfill to replace the Otay landfill will nevertheless be accelerated. The term "Integrated Waste Management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. Priorities as established within the California Integrated Waste Management Act of 1989 enacted by Assembly Bill 939, the San Diego County Mandatory Recycling Ordinance and the City of Chula Vista Source Reduction and Recycling Element, stress that waste management priorities include:

- Source Reduction
- Recycling
- Composting
- Alternative Technology
- Landfilling
- Household Hazardous Waste Management

A. Source Reduction

Source reduction is generally defined as changes in the production of goods, consumer buying habits, and various commercial, industrial, business, and household activities which result in reducing the quantity of waste generated. Source reduction typically encompasses the following elements: (1) reduced resource use per product; (2) increased product life; (3) product reuse or repair; and (4) decreased consumption.

B. Recycling

Recycling is a process and not a single action. Typically symbolized by the familiar circle of chasing arrows, recycling and composting moves beyond the traditional methods of disposal by "closing the loop" and using discarded components of raw products as the raw materials for new ones. To successfully close the loop, four major actions are generally required to occur before recycling can take place: 1) Separation; 2) Collection; 3) Marketing; and 4) Reconfiguration.

Curbside recycling programs have generally required the separation of materials in either separate bins for each commodity or in what is commonly referred to as a commingled box. Although there are several variations of these two systems, studies indicate that more complicated systems do not necessarily provide a cleaner, less contaminated recyclable product and often result in a lower participation rate.

Multi-family residential developments will be designed and built with recycling and waste reduction activities integrated into each project. Each project will be developed with individual storage area(s) dedicated to recyclable storage bins. These special recycling storage bins will conform to adopted standards and include a locked cover with only a drop-through opening for receiving recyclables. The separated recyclable bins would be collected by a franchised or contracted waste hauler.

Neighborhood recycling and drop-off centers were mandated in 1986 by the passage of the California Beverage Container Recycling and Litter Reduction Act. Development will incorporate this mandated neighborhood recycling center. Village centers will be equipped with a recycling and buy-back center. This will provide the unique opportunity to custom fit the recycling/drop-off center design and architecture into the village center instead of isolating collection bins in the parking lot. These facilities should be 8,000-12,000 sq. ft.

A Materials Recovery Facility (MRF) will be necessary to achieve the overall recycling goals. The criteria utilized to both size and site such a facility is dependent upon the types of waste generated, population centers, waste shed served and facility ownership. A MRF acts as a collector/processor for the waste stream. Recyclable materials are separated for reuse or sale, green wastes and wood wastes are separated for mulching or composting.

The year 2000 is a critical date for development of a MRF. On or before the year 2000, the Integrated Waste Management Act of 1989 stipulates a recycling/waste reduction goal of 50%. Achievement of this goal without a MRF will be extremely difficult to accomplish. Based upon population and waste generation projections, landfilling of the created wastes without separation and diversion will not be a viable waste management practice by the year 2000. The development of an MRF to assist in the reduction and diversion of the project's waste stream is assumed to be necessary by the year 2000.

C. Composting

Composting is traditionally a process by which leaves, grass clippings, and other municipal organic debris can be diverted from landfills. Simply put, composting involves the natural decay of organic wastes into a mulch or soil conditioner.

A composting facility to divert green/yard wastes from entering the County's landfills will be necessary to achieve the 50% recycling goal. The existing Otay Landfill waste stream is composed of more than 20-30% green/yard wastes. It is assumed that a similar waste composition will be generated by the Otay Ranch.

The acreage necessary to process compost materials will vary depending upon the waste shed served. Approximately 40 acres in either one facility or spread over a number of smaller facilities would be necessary to process yard waste upon build-out of the Otay Ranch.

The composting facility would produce several end products from the supplied green wastes of the served communities which may, in turn, be reused within the original generator communities. With the large expanse of greenbelts proposed within the Otay Ranch, a ready market will exist for utilization of the generated materials which may in their finished form take on one of the following forms: (1) compost for soil conditioner; (2) garden mulch; (3) ground cover; (4) soil binder for erosion control; (5) boiler fuel; or (6) sludge bulking agent.

D. Alternative Technology

Alternative Technologies for energy recovery from solid wastes can comprise many forms. Incineration can reduce the volume of wastes 80 to 90% and generate heat, steam, or electricity in the process. Typically two types of incinerators are available for solid waste applications:

- Mass Burn facilities
- Refuse Derived Fuel (RDF) facilities

Additional types of energy recovery are possible, including waste transformation, a process by which organic solid wastes are processed to produce methane used to power steam generators, or internal combustion engines, which in turn produce electricity. However, for clarity purposes, it

should be noted that the Act categorizes energy recovery as Waste Transformation, and the environmental restrictions on siting such facilities may prove to be prohibitive in the Otay Ranch area.

E. Landfilling

Landfilling is considered the least desirable method available to effectively manage solid wastes. Although it is recognized that landfilling is inevitable for some types of wastes, the reliance upon this waste management option alone cannot save resources or promote a reduction in the amount of waste generated. Therefore, this method of waste disposal is recognized as a last resort for the waste management solutions.

Landfills are the final step in the integrated waste management plan. San Diego County is undergoing siting studies to locate a replacement facility to serve the current Otay Landfill waste shed area. The Southwest County Landfill Site Search is focusing on three sites, located throughout southwest San Diego County, that represent the greatest potential for development. One of these sites will likely be the replacement landfill utilized for disposal of solid wastes (after recycling and composting) by the Otay Ranch after the Otay Landfill closes.

The location and distance of the new landfill site from the Otay Ranch development is not anticipated to affect the Integrated Waste Management Plan proposed for the Otay Ranch. The refuse collection system, recycling system, composting program, and Material Recovery Facility are anticipated to be necessary to achieve the regulatory recycling goals, regardless of the distance from the landfill, therefore, no significant impacts are anticipated.

F. Household Hazardous Waste Management

Household Hazardous Wastes are a small, yet significant part of the hazardous waste stream. They consist generally of discarded cleaners, pesticides, paint products, automotive products, hobby products and other toxic substances commonly found around the household.

When these materials are disposed of improperly in the municipal refuse system, they have the potential to harm refuse workers and contaminate landfills, the underlying groundwater and other environmental media. A recent

Environmental Protection Agency study revealed that 0.35 to 0.40% of residential wastes are "household hazardous wastes." Given this statistic, for San Diego County, there could be as much as 8,360 tons of household hazardous waste generated each year.

The long-term solution for a successful household hazardous waste program lies with an informed and educated community. The County contracted with the Environmental Health Coalition, a private non-profit organization, to develop and implement a community education program. It is anticipated that such an education program will be available to the future residents of the Otay Ranch.

The San Diego County Household Hazardous Materials Program has proven to be one of the most effective programs in the country. The program is enthusiastically supported by City and County of San Diego officials, who are planning in a cooperative manner for its expansion. It is anticipated that this program or a similar one will be made available to the future residents of the Otay Ranch.

V. Facilities

In order to meet the State mandated recycling goal of 50% by the year 2000, a totally integrated waste management system is required. The achievement and maintenance of the 50% reduction goal requires simultaneous implementation of multiple systems. These systems should include: (1) curbside recycling; (2) neighborhood recycling/buy-back centers; (3) a materials recovery facility; (4) a composting facility; (5) a household hazardous waste collection facility; and (6) landfill capacity.

Neighborhood Recycling/Drop-Off Centers: At least one Neighborhood Recycling/Drop-Off Facility should be sited in each village, requiring approximately 14² neighborhood facilities. These facilities should be sited on 5,000 to 12,000 sq. ft. lots.

Materials Recovery Facility: One Materials Recovery Facility should be located on an 8 acre parcel centralized to the waste shed area to be served. The site should be located in an industrial or light manufacturing zone to be compatible with surrounding land uses. This facility should have the ultimate capacity to process approximately 200 TPD.

Otay Ranch Facility Implementation Plan Integrated Solid Waste Management Facilities

Composting Facility: One or more composting facility should be located in Otay Ranch to compost the estimated green waste generated. These facilities should be located on approximately 40 acres (total), 29 acres for actual composting activities, 7-8 acres for stockpiling and storage, and 3 acres to buffer the facilities. The facilities could be sited in conjunction with the MRF.

Household Hazardous Waste Facility: One facility to collect hazardous waste generated from South County residents should be located in Otay Ranch. This facility should be sited in cooperation with the City of Chula Vista and County of San Diego and the County Solid Waste Technical Advisory Board.

Landfills: Recommend coordination with the County of San Diego and City of Chula Vista to utilize the existing Otay Landfill until a new South County landfill is opened³.

VI. Processing Requirements

A. SPA Requirements

- Specific facility sites identified and reserved.
- Alternative financing methods refined.
- Determine, in cooperation with the County Solid Waste Division, that adequate capacity exists for South County area solid waste to serve the proposed development. Adequate capacity shall be that which allows the County and/or the City of Chula Vista to maintain compliance with solid waste programs, laws and regulations.
- Timing of construction consistent with GDP/SRP project requirements identified.

B. Tentative Map Requirements

- Conditioned to reserve site.
- Funding identified.

C. Final Map Requirements

- Site reserved.
 - Funding assured.
-

- 1 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
- 2 Neighborhood Recycling/Drop-Off Centers in Villages 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15 the EUC.
- 3 There are two potential landfill sites in Otay Ranch.

Urban Runoff Facilities

I. Threshold

An urban runoff diversion system shall be designed to ensure the protection of water quality within Otay Lakes.

II. Goals, Objectives, Policies and Standards

Goal: Ensure that water quality within the Otay Ranch Project Area is not compromised.

Goal: Ensure that the City of San Diego's water rights within the Otay River watershed shall not diminish.

Policy: An urban runoff diversion system shall be designed to ensure the protection of water quality within Otay Lakes.

Policy: Best Management Practices (BMP) including, but not limited to urban runoff diversion systems, shall be developed to protect water quality within Otay Lakes.

III. Existing Conditions

The purpose of the Otay Reservoir Urban Runoff Protection Report (D. Wilson, 10/30/89) is to provide a comprehensive plan to preserve the water quality in the Upper and Lower Otay Reservoirs. The study reviews alternatives to prevent the build-up of salts and nutrients in the reservoir.

The original Wilson report was completed in 1989 and updated in October 1993. Subsequent to that time, substantial new information has become available on urban runoff protection systems. It is the goal of this implementation plan to outline a process and schedule for the collection of data, the review of alternative design systems and the resolution of conflicts between the property owner and the jurisdictions with review/approval authority. This work will be done prior to or in conjunction with the first specific plan in a drainage basin that affects either reservoir.

The upstream end of the primarily natural water course which drains to the Lower Otay Reservoir System begins at Morena Reservoir, which flows to Barrett

Reservoir and from there to Lower Otay Reservoir, the final collection point. The Upper Otay Reservoir is a separate drainage basin in this system flowing directly into Lower Otay Reservoir. The drainage basins of interest in this report include both Upper Otay Reservoir as well as Lower Otay Reservoir and will be collectively called the Lower Otay Drainage Basin.

The Upper and Lower Reservoirs are owned and operated by the City of San Diego (San Diego). These reservoirs are the only source of raw water to San Diego's Lower Otay Water Treatment Plant providing drinking water to over 100,000 people in the communities of San Ysidro, Otay Mesa and Nestor in San Diego and to the California American Water Company (Cal-American) which serves the cities of Imperial Beach and Coronado. Around the turn of the last century when San Diego acquired water rights to the Otay River and cottonwood Creek watersheds, San Diego agreed to continue supply of local water to Cal-American from these watersheds indefinitely. As Cal-American never joined the San Diego County Authority and Metropolitan Water District, it has no rights to imported water and remains solely dependent on local water furnished by San Diego. For these reasons it remains absolutely critical that the quality and quantity of local runoff to the Otay reservoirs will not diminish in any way. Water quality concerns about Upper Otay Reservoir are further amplified by the fact that it is presently being used as a bass-hatchery by the California Department of Fish and Game.

Water from the Lower Otay Reservoir System feeds the City of San Diego's Otay Filtration Plant for delivery into the City's water distribution network. The water is withdrawn via an outlet near the dam in Lower Otay Reservoir. The Lower Otay Reservoir System is presently the main source of water for this filtration plant. The County Water Authority has a filtered water barrel that terminates at the Otay Filtration Plant.

There is no urban runoff protection system or emergency spill management plan within the Lower Otay Drainage Basin.

A. Characteristics of Drainage Basins

Lower Otay Drainage Basin

The Lower Otay Drainage Basin consists of approximately 98 square miles, per the "Comprehensive Water Quality Control Plan Report San Diego Basin(9)," 1975, J. M. M. These 98 square miles include all the drainage area into Lower Otay Reservoir and the drainage area into Upper Otay Reservoir which drains into Lower Otay Reservoir, as mentioned previously.

Elevations in the Lower Otay Drainage Basin vary from a low at the reservoir of 500 feet to a high point of 3,300 feet in the San Ysidro Mountains. The terrain in the basin varies from broad flat canyon bottoms to steep rocky mountains.

Barrett-Morena Drainage Area

Both Barrett and Morena Dams are located on Cottonwood Creek. This creek naturally drains south to Mexico via the Tijuana River and not into the Lower Otay Drainage Basin. At Barrett Reservoir, the Dulzura Conduit begins. This conduit transports water from the Barrett-Morena Drainage Basin, which covers approximately 248 square miles, across the ridge to the Lower Otay Drainage Basin. The Dulzura Conduit consists of nine miles of manmade conduit which conveys water out of the Barrett-Morena Drainage Basin and discharges into Dulzura Creek. This water continues down the Dulzura Creek channel 11 miles to Lower Otay Reservoir.

B. San Diego County Water Authority Pipeline

The San Diego County Water Authority (CWA) has a 69 inch pipeline (SDCWA Pipeline No. 3) that ends at the Lower Otay Reservoir. The pipeline is now carrying filtered water to supply the Otay Water District and the City of San Diego. A second pipeline has recently been completed and will soon be put into service. When the new pipeline is put in service, it will carry filtered water and Pipeline 3 will be converted to unfiltered water.

C. Assessment of Water Quality Concerns

As development occurs in the Lower Otay Drainage Basin, the likelihood of pollutants in the runoff to the Lower Otay Reservoir increases. The Wilson report addresses water quality concerns due to storm water runoff, dry weather runoff, ground water, and spills. Urbanization will change the nature, quantity and duration of runoff to the reservoir. Urban areas tend to generate runoff throughout the year. Natural drainage basins only tend to have runoff during the rainy season.

Rain is the greatest contributor to runoff into the Lower Otay Reservoir. The quality of the runoff will vary with the development of the property. The storm water runoff from undeveloped areas tends to have lower salt concentrations than storm water runoff from developed areas.

The nature of the runoff from undeveloped areas and agricultural areas in the Lower Otay Drainage Basin should remain unchanged when development occurs. The present salt content of runoff in the basin is estimated to be 250 mg/l.

As development occurs within portions of the Lower Otay Drainage Basin, the quantity and the quality of the runoff from these areas will change. Due to the greater percentage of impermeable surfaces and the presence of more irrigated landscaped areas associated with development, the quantity of the runoff will increase, while the quality will decrease.

Dry Weather Urban Runoff: Due to inefficient irrigation practices, car washing, porch and driveway wash down, swimming pool drainage, and other similar activities, urban areas generate dry weather flows. This dry weather urban runoff is typically very poor quality water.

Ground Water: As the Lower Otay Drainage Basin continues to develop, the ground water quality will continue to be degraded. The degradation of the ground water will be in part caused by existing and future septic tank leach fields in the unsewered areas and by percolation of poor quality irrigation water.

Spills: As urbanization occurs in the Lower Otay Drainage Basin, the risk of spills into Lower Otay Reservoir also increases. The emergency spill

management plan must be completed by the City of San Diego. With the development of Otay Ranch, this plan will be updated to reflect the new conditions.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

A. Urban Runoff Protection Alternatives

The Wilson report outlines a number of alternatives to protect the quality of water in the Lower Otay Reservoir. The report identifies structural and non-structural protection alternatives. These alternatives are described below.

Extended Detention Ponds: Extended detention ponds would trap urban runoff and hold it for a period of up to six hours to trap sediments and other contaminants in the wastewater flow. These ponds would be designed into development projects around the lake if this method is chosen.

Wet Ponds: Wet ponds are similar to extended detention ponds but a portion of the pond is below the outlet level and remains wet all the time. These ponds provide a higher level of treatment than extended detention ponds and could also be designed into the project.

Infiltration Ponds: Infiltration ponds could be constructed in the area but would require a manufactured underdrain system since the soils in the area do not have adequate percolation rates for normal infiltration ponds.

Constructed Wetlands: Constructed wetlands are an alternative in areas such as Proctor Valley where there is a stream course which could be enhanced as a wetlands. Wetlands are very efficient in the removal of contaminants.

Diversion Systems: A diversion system could be installed around the reservoir as either a mandatory diversion system or voluntary diversion. Under a mandatory diversion, all water entering the system would be diverted out of the basin and around the dam. Under a voluntary system the water would be placed into a storage basin for later testing, and if the quality was suitable it could be

diverted into the reservoir. If the quality was found to not be suitable it would be diverted around the reservoir.

Education Program: A public education program should be developed for the portions of Otay Ranch which lay within the areas contributing the reservoirs. The program should include fliers and disseminate information on pesticide use and other household contaminants, such as fertilizer, which could impact reservoir quality.

Watershed Inspection and Monitoring Program: A watershed inspection and monitoring program could be put in place so that after development a continual review and monitoring of the watershed is conducted to identify and attempt to eliminate sources of contaminants.

Watershed Drainage Course Maintenance: A routine maintenance program should be set up so that all structural control devices installed in the watershed are properly maintained.

V. Processing Requirements

A. SPA Requirements

- Identify potential drainage basin impacts on the reservoir system.
- Identify cost of potential runoff protection system by phase.
- Identify area of benefit from provision of system phase.
- Provide a Reservoir Protection Plan (as detailed in City of San Diego correspondence dated October 11, 1991)
- Select urban runoff protection system prior to or concurrent with first SPA in a drainage basin for the reservoirs. The system will include:
 - Structural control device recommendations.
 - Preparation of Watershed Impact and Protection Report.
 - Urban runoff protection system to be recommended.
 - Nonstructural controls defined.
 - Watershed Inspection Program.

- Open space and drainage course management.
- Public education.
- Zoning controls.
- Landscape maintenance district.
- Interagency agreements (to finance and maintain system).

B. Tentative Map Requirements

- Condition to provide specific phased improvement.
- Condition easements where appropriate.
- Specify system design parameters.
- Identify specific financing plan for improvement construction.
- Refinement of recommended urban runoff protection system and update to watershed impact and protection report, as needed.
- Condition maps for recommended structural and nonstructural controls.

C. Final Map Requirements

- Implement conditions
- Establish financing plan.
- All ordinances and agreements for structural and nonstructural controls complete.
- Design of all permanent structural controls complete.
- Design of all temporary structural controls complete.

D. Building Permit

- Pay appropriate fee, if urban runoff facility previously constructed by other surrounding property owner.

Otay Ranch Facility Implementation Plan Urban Runoff Facilities

- ¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Water Facilities

I. Threshold

Ensure an adequate supply of water on a long-term basis, prior to the development of each Otay Ranch SPA.

II. Goals, Objectives, Policies and Standards

Goal: Ensure an adequate supply of water for build-out of the entire Otay Ranch Project Area; design the Otay Ranch Project Area to maximize water conservation.

Objective: Ensure an adequate supply of water on a long-term basis prior to the development of each phase of the Otay Ranch Project Area.

Objective: Ensure infrastructure is constructed concurrently with planned growth, including adequate storage, treatment, and transmission facilities, which are consistent with development phasing goals, objectives and policies, and the Service/Revenue Plan.

Objective: Ensure that water quality within the Otay Ranch Project Area is not compromised, consistent with NPDES Best Management Practices, and the RWQCB Basin Plans.

Policy: Coordinate Otay Ranch land planning with the applicable water district provider.

Implementation Measure: Where feasible, site water facilities in the locations most suited to the needs of present and projected future residents.

Policy: Discretionary land development applications dependent on imported water will only be approved if the service provider reasonably expects that water facilities will be available concurrent with need, and that all appropriate requirements will be met through conditions placed on project approval.

Implementation Measure: Require, as a basis of approval of specific plans, that the applicant obtain an indication from the water district that facilities are available, or are reasonably expected to be available, to serve that project concurrent with need.

Implementation Measure: Require commitment of availability of water facilities from the applicable water district before a subdivision map can record.

Objective: Promote water conservation through increased efficiency in essential uses and use of low water demand landscaping.

Objective: Encourage suppliers to adopt a graduated rate structure designed to encourage water conservation.

III. Existing Conditions

A. Water Supply

The principal water supply for the Otay Ranch will come from the Metropolitan Water District. The Metropolitan Water District is the sole supplier of water to the San Diego County Water Authority. The Metropolitan Water District's primary sources of water are the State Water Project and the Colorado River.

Colorado River Supply: The Colorado River Aqueduct is capable of delivering 1.2 million acre-feet of water to Southern California. However, the dependable water supply from the Colorado River is now estimated to be 470,000 acre-feet per year (Mooney). The Metropolitan Water District contracts with the California Division of Water Resources for delivery of surplus water as it becomes available from the Colorado River. However, this surplus water is not considered a dependable supply.

State Water Project: The California Department of Water Resources made contractual agreements with agencies providing for the ultimate delivery of 4,218,000 acre-feet of State Project Water. The Metropolitan Water District contracted for an ultimate delivery of 2,011,500 acre-feet per year from the State Water Project. Without additional improvements, the dependable supply from the State Water Project to the Metropolitan Water District is estimated to be 1,140,000 acre-feet in the year 2010. If improvements are not completed by the year 2010 to allow the Metropolitan Water District to take contracted rights in the State Water Project, there will be a potential shortage of 740,000 acre-feet per year in the year 2010 (Mooney). With the completion of additional facilities on the State Water Project, this potential shortage could be turned into a surplus supply of 131,500 acre-feet.

Imperial Irrigation District Improvements: The Metropolitan Water District has entered into an agreement with the Imperial Irrigation District to provide water saving canal improvements in exchange for use of the water saved. Many of the large canals which transport water within the Imperial Irrigation District are old, unlined earthen canals which cause loss of water via seepage into the ground. Metropolitan's agreement allows for concrete lining of these canals for the right to use the quantity of water saved. This is estimated to be approximately 100,000 acre-feet/year. The Metropolitan Water District has pursued this source of water in order to offset expected shortfalls in water deliveries from the State Water Project and Colorado River Aqueduct.

B. Service Delivery

1. Otay Water District

The Otay Water District provides water service to a large portion of the City of Chula Vista. The Otay Water District boundaries encompass approximately half of the Otay Ranch property.

2. Sweetwater Authority

The Sweetwater Authority provides water service to National City, a portion of the County of San Diego, and a portion of the City of Chula Vista.

3. City of San Diego

The City of San Diego provides water service to the City of San Diego, Imperial Beach, Coronado and areas in the County of San Diego. A portion of Otay Ranch is within the City of San Diego. The City of San Diego could provide contract service to areas outside its corporate boundaries, provided arrangements are made and approved by the agency with control over the land planning process.

4. City of Chula Vista

The City of Chula Vista has no infrastructure to provide water.

C. Design Criteria

This section presents the design criteria which were utilized for the sizing of potable water facilities necessary for the Otay Ranch. The criteria established by the Otay Water District and City of Chula Vista were utilized whenever applicable. Design criteria utilized for sizing of potable water facilities should be the criteria established by the jurisdiction which will provide water service.

Potable Water Supply Facilities: Design criteria were established to size reservoirs, water pump stations, water transmission mains and treatment facilities for the Otay Ranch project. These criteria are in conformance with the Otay Water District Water Resources Master Plan (1991) prepared by Black & Veatch.

Water Duty Factors: Water duty factors were used to generate potable water demands in the Otay Ranch project. These factors are listed in Table 1.

Table 1

Residential	
Very Low Density (<1 DU/AC)	420 gpd/DU
Low Density (1 to 4 DU/AC)	360 gpd/DU
Medium Density (4.1 to 8 DU/AC)	300 gpd/DU
High Density (>8 DU/AC)	180 gpd/DU
Commercial, Institutional, Industrial	2,000 gpd/AC
Parks	3,570 gpd/AC

System Pressures: Criteria for system pressures at various points under dynamic conditions of peak hour and fire flow are shown in Table 2.

Table 2

**Minimum Water Pressures
Under Dynamic Conditions**

Minimum Pressure	
<u>Flow Condition</u>	<u>psig</u>
Peak Hour	40
Fire Flow	20

Pressure Zones: Design standards for water service, based on elevation of service is shown in Table 3.

Table 3

Static Pressures by Zone

Reservoir High Water	Elevation Served, ft.		Static Pressure, psig	
<u>Level, ft.</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>
624	474	300	140	65
710	560	475	102	65
980	830	561	181	65
1,296	1,145	831	201	65
1,620	1,440	1,146	207	78

Fire Flows: Fire flows for the various land use areas are shown in Table 4. Fire flows for commercial and residential areas were estimated from Insurance Services Offices Standards. These standards establish fire flow requirements based upon criteria such as building area, construction, occupancy and proximity to other structures.

Table 4

Fire Flows

<u>Land Use Type</u>	<u>Fire Flow, gpm</u>
Single Family Residential	1,500
Multi-Family Residential	2,500
Commercial	3,500
Industrial	5,000

Storage Facilities: There are two types of water storage requirements for the Otay Ranch project: terminal storage and operational storage. Terminal storage is needed to provide a source of water for the project during shutdown of pipelines which deliver imported water to the South County area. The San Diego County Water Authority recommends to its member agencies that each agency be capable of maintaining independence from CWA for a minimum of 10 days. The Otay Water District has designated the emergency reserve portion of the operational storage reservoirs to be counted as a part of the terminal storage volume needs of the District. The planning criteria for the emergency reserve portion is equal to 1.0 times the maximum day demand. Operational storage volumes may not be counted as part of the terminal storage requirements in the Otay Water District service area. The Otay Water District calculates operational storage as 1.3 times the maximum day demand plus fire storage.

Reservoir storage is provided to regulate the source of supply within a particular water service zone and to provide additional water to the zone during peak hour demands and emergencies, such as fire flows. The operational reservoir storage volume consists of three components (i.e. operational, emergency reserve and fire storage). The stored volume is provided to regulate the source supply, such as pumping, and to provide water during peak demand, emergency and fire flow conditions.

Transmission Mains: Pipelines were sized to yield a maximum velocity of 10 feet per second for maximum day or peak hour demands (whichever is greater) plus fire flows, while being large enough to meet the minimum pressure requirements shown in Table 2. Piping networks are established in an attempt to meet the planning criteria pressure requirements. The Otay Water District

strives to achieve at least the standard established in the California Waterworks Standard.

Adequate sizing of the mains was verified through modeling of the water distribution system within each water service zone. Each zone's model was subjected to a Hardy Cross computer analysis via the Steady State Pipe Network Analysis Software prepared by the University of Kentucky.

Water Booster Station: The combined capacity of each zone's pump stations was set to satisfy the summation of maximum day demand in all higher zones. The reservoirs are then utilized to satisfy peak hour demand.

Water Treatment Plant: It is recommended that water filtration capacity be provided for the project. A filtration plant should be designed to accommodate State Project Water. It will contain processes for chemical mixing, coagulation, flocculation, sedimentation and filtration. It will also contain chemical storage and metering equipment for chemicals to promote coagulation, eliminate taste and odors, adjust pH and provide disinfection. As noted in the recommended facilities section of this report, water filtration plant capacity should be purchased in the City of San Diego's existing treatment plant at the Lower Otay Reservoir. If this option is pursued, a large pump station would be required to boost the entire Otay Ranch demand to the 624 Zone system.

D. Chula Vista Water Task Force Report

At the local level within the City of Chula Vista, the City Council is in the process of implementing the recommendations from the Chula Vista Water Task Force. The Task Force has offered the following recommendations:

1. Chula Vista should immediately actively work to establish a Chula Vista Interagency Water Commission (IAWC) to deal with local water related issues.
2. Chula Vista should become more proactive in state and regional water related issues.
3. Chula Vista should provide adequate support staff for increased attention to water issues.

4. The City's General Plan, Land Use Plan, Managed Growth Element of the General Plan, and the Master Plans from all appropriate water agencies should be integrated to reflect short term and long term goals.
5. The City should establish ordinances and guideline manuals for the implementation of conservation and water related measures.
6. The City should adopt specific policies regarding water related issues.
7. Chula Vista, through the Interagency Water Commission, should work to establish a new water use and conservation ethic in the IAWC planning area as a model for all San Diego County.

Recommendations number 5, 6 and 7 of the Water Task Force speaks to the City of Chula Vista, in cooperation with the applicable water district provider, taking a more active role in promoting conservation efforts in establishing guidelines for itself and all future developments within the City to conserve water. The examples of the conservation technique suggested include:

1. Ultra-low flow toilets and low flow shower heads.
2. Require hot water systems to be insulated in all new developments and/or upon resale of existing homes.
3. Require mandatory use of reclaimed water where the appropriate water agency has stated that it either has or will have the ability to develop such water.
4. Require each developer to prepare a water use/conservation report detailing the programs they propose to implement to reduce water demand.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Based on the land uses and the water duty factors, water demands were estimated for each land use area for the Otay Ranch within each water service zone. Acreage and water demands for the 624, 710, 980, 1296, and 1620 Water Service Zones are summarized in the Wilson Engineering Water and Sewage Master Plan. The total potable water demand for the Otay Ranch property is estimated at 10.0 million gallons per day for average day use.

V. Facilities

Lower Otay Filtration Plant and Reservoir

The recommended alternative to obtain the additional water necessary for the project's short term and long term needs is by lease or purchase of capacity in Lower Otay Filtration Plant and Reservoir and a connection to the proposed San Diego County Water Authority treated water pipeline. The plant has additional filtration capacity under construction and existing facilities are in place to supply filtered San Diego County Water Authority water directly to the Lower Otay Reservoir. This solution may involve higher operational costs, since water would be filtered twice (once at Lake Skinner and then again at Lower Otay Reservoir) but this would be acceptable as an interim solution until the San Diego County Water Authority constructs an unfiltered aqueduct barrel to the Lower Otay Reservoir.

Alternatively, the Lower Otay Filtration Plant could be fed from the County Water Authority raw water pipeline. A connection to the CWA potable water pipeline could be used when the raw water pipeline is not capable of delivery. This arrangement would require an agreement with the City of San Diego.

624 Water Service Zone

The proposed facilities assume the purchase of average day demand filtration capacity in the Otay Filtration Plant and storage in Lower Otay Reservoir. Also

710 Water Service Zone

The 710 Zone Water Service Zone facilities include one operational storage reservoir, two booster stations and transmission mains.

980 Water Service Zone

The 980 Water Service Zone serves all three parcels. The facilities include three reservoirs, two booster stations and distribution mains.

1296 Water Service Zone

The 1296 Water Service Zone supplies a small area in the San Ysidro Mountains and Proctor Valley Parcels. The western portion of the San Ysidro Mountains Parcel contains one reservoir, one booster station and water transmission mains. The eastern portion of the San Ysidro Mountains Parcel contains one reservoir, one booster station and transmission mains. The Proctor Valley Parcel includes one reservoir, one booster station and 48,750 feet of transmission mains.

1620 Water Service Zone

The 1620 Water Service zone supplies a small area in the eastern portion of the San Ysidro Mountains Parcel and in the northern portion of the Proctor Valley Parcel. The service zone within the San Ysidro Mountains Parcel consists of one reservoir, one booster station and transmission mains. The service zone within the Proctor Valley Parcel consists of one reservoir, one booster station and transmission mains.

Maps of the proposed facilities for each service zone are available in the Wilson Engineering Otay Ranch Master Plan of Water and Sewage Report, October 1993.

Other Facility Improvements

As previously shown, the average estimated potable water demand for Otay Ranch is 10.0 mgd. This total demand reflects the use of reclaimed water on the Otay Valley Parcel, which is estimated at 3.6 mgd (see the Water Reclamation Implementation Plan).

VI. Processing Requirements

A. SPA Requirements

- Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
- Identify location of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed project.
- Provide cost estimates.
- Identify financing methods.
- Provide a Water Conservation Plan.
- Annexation of property to MWD/CWA/water district, if appropriate.
- Assure adequate water supply in accordance with the phasing plan.

B. Tentative Map Requirements

- Condition to provide on-site and off-site facility improvements for a separate reclaimed water distribution and storage facility by phase of development.
- Condition to provide required easements.
- Identify specific financing for each improvement.
- Obtain letter from the appropriate water district indicating capacity to serve the phased development.

C. Final Map Requirements

- Implement conditions.
- Obtain water district's will serve letter for the project.

D. Building Permit

- Payment of impact fees (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Water Reclamation Facilities

I. Threshold

Design a sewerage system which will produce reclaimed water. Ensure a water distribution system will be designed and constructed to use reclaimed water. Construction of a "dual system" of water supply will be required for all development where reclaimed water is used.

II. Goals, Objectives, Policies and Standards

Goal: Design a sewerage system which will produce reclaimed water and ensure a water distribution systems will be designed and constructed to accommodate use of reclaimed water. Construction of a "dual system" of water supply should be required for all development where the use of reclaimed water will not jeopardize potable water supplies.

Objective: Encourage development of public and private recreational uses that could utilize reclaimed water.

Policy: Sewage treatment within the community should be oriented toward reclamation and reuse of wastewater for public and private landscape controlled by a public agency or homeowner's association and golf course irrigation purposes.

Implementation Measure: Implement development regulations that require water conservation, wastewater reclamation, and drought-tolerant landscaping.

III. Existing Conditions

The purpose of the Reclaimed Water Facilities Master Plan is to analyze the existing conditions to include supply and distribution facilities needed for the Otay Ranch. The design criteria used in the preparation of this master plan are in conformance with those used in the 1991 Otay Water District Water Resources Master Plan 1991, prepared by Black & Veatch.

Otay Water District is the purveyor of reclaimed water within their jurisdiction. A conceptual reclaimed water master plan has been prepared which includes the Otay Valley Parcel.

The San Diego County Water Authority is preparing a regional water offset program¹. If the County Water Authority adopts a water offset program, the City of Chula Vista may adopt the program if it is compatible with their intentions. The use of reclaimed water will be a major issue in the guidelines with either of these offset programs.

A. Potential for Reclaimed Water Use

Land use areas, including regional, community, and neighborhood parks, as well as golf courses, schools, private recreational facilities, agricultural and streetscapes were analyzed as potential sites for irrigation with reclaimed water.

A reclaimed water system is discussed for all three Otay Ranch parcels. Currently, reclaimed water could not be used on the Proctor Valley Parcel or the San Ysidro Mountains Parcel because both are tributary to the Lower Otay Reservoir. The Lower Otay Reservoir is a potable water source and use of reclaimed water in areas tributary to potable water sources is not recommended.

Although the use of reclaimed water on the two eastern parcels of Otay Ranch is not recommended because they are tributary to a potable water supply, this issue will be pursued as development progresses to try and incorporate the use of reclaimed water. There are numerous concerns by the State Health Department and Regional Water Quality Control Board concerning this matter which must be addressed, including the implementation of an adequate urban runoff protection system.

B. Design Criteria

The annual average day demand assumed for irrigation of the reclaimed water use areas was 3,570 gpd/acre. System distribution lines were sized for velocities less than 8 fps under peak hour conditions. The minimum size line is 4-inch. A factor of 7.8 was used to convert annual average day to peak hour demands. A factor of 2.6 was used to convert annual average day demands to peak day demands. The required operational storage is equal to one peak day demand. Pump stations were designed to meet peak day demands.

To provide reclaimed water with as low a total dissolved solids content as possible, it is recommended that prohibitions against discharge of brine from on-

site self-regenerating water units from all sources be enacted and enforced in Otay Ranch.

The water reclamation plant is assumed to be an activated sludge wastewater facility capable of reliably treating to satisfy the most restrictive standards of Title 22. The plant must provide disinfection, and filtration prior to release of any reclaimed water. The resulting effluent will be suitable for all unrestricted reclaimed water uses.

The Regional Water Quality Control Board controls the use of reclaimed water within the existing drainage basins. Basin plan amendments are not expected since the Board adopted Resolution No. 90-61, which states that the use of reclaimed water is allowed as long as it is better quality than the groundwater objectives for the basin. The lowest groundwater (TDS) objective for sub-units on Otay Ranch is 1000 mg/l.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

The major reclaimed water use areas include three proposed golf courses and the Otay River Valley Regional Park. The following table presents the average annual reclaimed water demand by parcel for Otay Ranch.

Summary of Reclaimed Water Demands

<u>Parcel</u>	<u>Average Reclaimed Water Demand, gpd</u>
Otay Valley	3,635,475
Proctor Valley	2,169,132
<u>San Ysidro Mountains</u>	<u>860,370</u>
Total	6,664,977

The proposed reclaimed water distribution system includes distribution line sizes that range from 8 to 24-inch, and distribution reservoirs with a total storage capacity of 17.3 million gallons. As development proceeds and additional areas are developed, which include potential use sites for reclaimed water, such as golf

courses, open space, recreational facilities, agricultural use or university space, the reclaimed water system and demands will be modified accordingly.

V. Facilities

Four reclaimed water service zones have been established. A pump station at the sewage treatment plant site will be required to boost the reclaimed water up to the 600 Zone. Two additional pump stations are proposed to boost reclaimed water into a 980 Zone system. Two 1340 Zone pump stations and a 1700 Zone pump station are also proposed.

As previously shown, the estimated reclaimed water demand for Otay Ranch is 6.7 mgd.

VIII. Processing Requirements

A. SPA Requirements

- Identify phased demands in conformance with the construction of sewerage facilities.
- Identify location of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed project.
- Provide cost estimates.
- Identify financing methods.
- Ensure compliance with RWQCB and County Health Department Rules and Regulations for the use of reclaimed water.

B. Tentative Map Requirements

- Condition to provide on-site and off-site facility improvements for a separate reclaimed water distribution and storage facility by phase of development.
- Condition to provide required easements.
- Identify specific financing for each improvement.

C. Final Map Requirements

- Implement conditions.

D. Building Permit

- Approval by County Health Department of plans showing use of reclaimed water.
- Payment of impact fee (if established).

1 This Water Offset Program is under internal County Water Authority review.

2 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Transportation System Facilities

I. Introduction

The Otay Ranch Transportation System Facility Implementation Plan provides a comprehensive, efficient, and safe system for a variety of transportation modes. This system completes and complements planned and existing regional systems.

Otay Ranch's western boundary is within a mile of I-805 and is connected to it by three major arterials. The project will complete the connection of the Otay Mesa with Chula Vista by providing three north-south arterials and SR-125. Links with rural county areas are provided and improved along Proctor Valley Road and Otay Lakes Road.

Automobile oriented improvements do not define the entire scope of improvements. Rather, they are only one component of an integrated mobility system, which includes bicycles, carts,¹ trails, pedestrian trails, fixed guideway transit and bus systems.

II. Goals, Policies, Objectives and Implementation Measures

Goal: Provide a safe and efficient transportation system within Otay ranch with convenient linkages to regional transportation elements abutting the Otay Ranch.

Objective: Ensure timely provision of adequate local circulation system capacity in response to planned growth, maintaining acceptable levels of service (LOS).

Objective: Plan and implement a circulation system such that the operational goal of Level of Service "C" for circulation element arterial and major roads and intersections can be achieved and maintained. Internal village streets/roads are not expected to meet this standard.

Objective: Encourage other transportation modes through street/road design standards within the village, while accommodating the automobile. Design standards are not focused on achieving LOS standards or providing auto convenience.

Objective: Provide an efficient circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.

Implementation Measure: Require, as a condition of approval of discretionary permits, the construction of new roads, bridges, roadway improvements, demand/system management, or other measures necessary to fully mitigate traffic impacts on circulation element roads, to avoid reduction in the existing Level of Service below "C," with the exception that LOS "D" may occur at signalized intersections for a period not to exceed a total of two hours per day. If the existing Level of Service is below "C," require necessary mitigation measures to maintain the current LOS.

Implementation Measure: Access to Circulation Element roads should be limited to maintain through traffic flow.

Policy: Otay Ranch shall contribute its fair share toward financing the transportation facilities necessary to serve the demand created by the development of Otay Ranch.

Implementation Measure: To the extent that Otay Ranch contributes to the need for a facility outside of its boundaries, Otay Ranch development shall mitigate its impact by participating in impact fee programs, or other means determined at the SPA level.

Policy: Support the design and construction of a regional circulation system that will have the capacity to carry the forecasted regional demand volumes through the area.

Policy: Coordinate and integrate the Otay Ranch transportation system with the transportation facilities and plans of surrounding jurisdictions.

Goal: Achieve a balanced transportation system which emphasizes alternatives to automobile use and is responsive to the needs of residents.

Objective: Study, identify, and designate corridors, if appropriate, for light rail and transit facilities.

Policy: Support and encourage the use of alternative forms of transportation such as public transit and car/van pools to reduce both roadway congestion and pollution.

Implementation Measure: Coordinate the planning of all new transit routes with established development patterns and land use plans.

Implementation Measure: No more than 15,000 dwelling units or 4,000,000 square feet of commercial use within the EUC shall be approved for the Otay Valley Parcel until such time as the funding is approved and construction assured for the light rail transit system.

Implementation Measure: Participate in programs for employers to encourage their employees to utilize alternate forms of transportation.

Objective: Promote alternative forms of transportation, such as bicycle and cart paths, riding and hiking trails, and pedestrian walkways as an integral part of the circulation system.

Policy: Provide a thorough and comprehensive bicycle circulation system, emphasizing bicycle paths, segregated from vehicular traffic, between major destinations within and adjacent to the Otay Ranch Project Area.

Policy: Develop patterns of land use which will allow the elimination of automobile trips and encourage pedestrian movement through pedestrian-friendly environments and proper land use mix.

Implementation Measure: Dedicate and construct bikeways as a condition of final map approvals, and require secure bicycle storage facilities at new commercial centers, public centers, industrial centers, transit centers, airports and multi-family developments.

Circulation Element Arterial and Major Roads

These roads typically provide for completion of the regional system. In this role, they are designed to operate at maximum efficiency, and provide for automobile and bus access to regional destinations, including freeways. They cross each other at intervals of three quarters of a mile or greater. Entry onto these roads, except at the EUC and Freeway Commercial, is restricted to Village Entry Streets. The following streets/roads reflect ultimate widths, but widths may be reduced at the SPA level based on the SPA traffic analysis and in accordance with the phasing plan:

**Otay Ranch Facility Implementation Plan
Transportation System Facilities**

Road Name	From	To	Classification
Alta Road	Otay Mesa Rd.	SR-125	6 Lane Prime*
Birch Road	La Media Rd.	SR-125	4 Lane Major
Birch Road	SR-125	EastLake Pkwy	6 Lane Prime
Birch Road	EastLake Pkwy,	Otay Valley Rd.	4 Lane Major
EastLake Pkwy,	Birch Road	E. Palomar St.	6 Lane Prime**
Orange Ave.	I-805	Otay Valley Rd.	6 Lane Prime
La Media/Otay Lakes Rd.	Otay Mesa Rd.	Bonita Rd.	6 Lane Prime
Otay Lakes Rd.	Otay Valley Rd.	Dulzura Crossing	6 Lane Prime
Otay Valley Rd.	I-805	Rock Mtn. Rd.	6 Lane Prime**
Otay Valley Rd.	SR-125	Alta Rd.	6 Lane Prime
Otay Valley Rd.	Alta Rd.	Birch Road	4 Lane Major
Paseo Ranchero	Telegraph Canyon Rd.	Otay Valley Rd.	6 Lane Prime
Paseo Ranchero	Otay Valley Rd.	Palm Avenue	6 Lane Prime
Palomar St.	I-805	Paseo Ranchero	4 Lane Major
Proctor Valley Rd.	SA 1150.1	Millar Ranch Rd.	4 Lane Major
Rock Mtn. Rd.	SR-125	Alta Rd.	6 Lane Prime**
* Alignment may move west - Right-of-way to be protected.			
** With the City of Chula Vista, these are 6 lane major roads.			

Policy: Provide a system that recognizes and is consistent with the adjacent circulation element roads.

Policy: Minimize impacts on adjacent residential and environmentally sensitive areas.

Policy: Minimize impacts on unique landforms by designing with the natural terrain where possible when selecting alignments.

Policy: Prohibit parking on arterial and major circulation element roads.

Policy: Provide over/undercrossings linking villages where appropriate. These should accommodate pedestrians and bikes and golf carts.

Policy: Provide bridges or culverts to allow for wildlife crossings where required by the Wildlife Corridor Study.

Policy: Prohibit bisecting village cores with circulation element roads.

Policy: Enhance traffic flow by minimizing the number of points of ingress and egress to villages from circulation element roads.

Policy: Prohibit driveways along arterials for any residential or village commercial use and strictly limit driveways for freeway commercial and EUC uses.

Policy: Design circulation elements roads in accordance with the GDP/SRP, Part II, Chapter 3, Mobility.

Policy: Design the village road systems to provide a hierarchy of streets and alternate routes connecting to the village core area.

Policy: Design village roads for human rather than automobile scale while ensuring public safety in all cases.

Policy: All streets shall be tree-lined, consistent with an overall village landscape plan.

Streets/Roads

Each village will provide a complex integrated system of roads, cart and bike paths, and pedestrian ways. The system is defined below by individual road types that may be found in all villages except for the rural standard. However, the actual pattern of roads varies within each village in response to site features, circulation element roads, topography, land use organization, etc. The following is a description of how these roads are located functionally within the village setting. While circulation element roads must adhere to prescribe levels of service, these interior roads are permitted to operate at less than established LOS. This is done to further encourage use of alternative modes of transportation.

Village Entry Streets

These divided roadways provide the "gateways" into the villages and are typically two lanes on each side of a median. They provide the only ingress and egress from the village to the arterial and/or major roads. One or more of these roads will visually focus on the village core/mixed use area. These roads extend from the Circulation Element Road to the Village Collector street, "alternate route" through the village. These roads always provide for pedestrian and alternate modes of transportation outside of the roadbed. In some villages these roads also reserve space for the future trolley.

Policy: Village entry streets should incorporate medians and be landscaped to reinforce village character and identity.

Policy: Direct driveway access shall be precluded on primary village, promenade, or collector streets except for commercial and multiple family parking areas.

Policy: Selected streets should provide direct visual access to the village core.

Policy: Design streets to give balance to the needs of the various modes of transportation using the street. Intersections should be designed to encourage pedestrian movement and reduce vehicle speed while ensuring public safety and providing for emergency vehicle access.

Village Core Streets

These undivided roads provide the link between the village entry and the mixed use area. These roads are always within the core of the village. Parallel parking is provided along the sides of the roadway where residential development fronts onto the street. In areas without street fronting residential development, only emergency parking is provided. Light rail transit right-of-way is reserved adjacent to village core streets, along specified routes in Villages 1, 5, 6 and 9.

Promenade Streets

Promenade streets provide the most direct route from the residential areas to the village core. The promenade designation comes from the pedestrian, double tree lined path which parallels the street. Street parking is provided along the street, wherever residential units abut.

Policy: Promenade streets should accommodate adjacent or integrated pedestrian, bikeway and alternate vehicles, with a double tree row at the pedestrian element to enhance pedestrian scale.

Main Street/Plaza Streets

These core area streets promote a quality urban village and pedestrian oriented character. Carts, bikes and automobiles travel slowly in the same lanes. The road is buffered from wide walks by parallel or diagonal parking. In designated villages, right-of-way is set aside for future transit use.

Residential Collector

These streets ring the village core although the core uses may be on both sides of the street. The collector is intended to provide an alternate route around the core area. Residential units usually abut both sides of the road, therefore parking occurs along both sides. Cart travel and bikes are accommodated in striped lanes in the road.

Residential Streets

Residential streets occur throughout the village. These streets have homes on one or both sides. Parking will be provided along the side or sides of the street. Carts and bikes travel in the roadway without a specially designated lane.

Policy: Cul-de-sacs are permitted if, at the end of the cul-de-sacs, pedestrian, bike and cart access remain open to a link to the village core or other desirable uses. Dead-end cul-de-sacs are permitted only in perimeter locations.

Alleys

In small lot single family, multi-family and mixed use areas, alleys may be appropriate. Alleys provide garage and service access. Pedestrian, bike and cart travel areas are not provided in alleys. Alleys are privately owned and maintained.

Rural Standards

Small scale streets with tight radius turns are proposed for very low density, large lots and steeper terrain areas. These tight turning radii streets have no curbs or gutters to promote a rural character and minimize grading and terrain modifications.

Objective: Large lot rural areas shall be planned using reduced width road sections, with rolled curbs, gutters, or sidewalks. All unimproved shoulders shall be provided, which could be utilized by pedestrians.

Objective: Parking shall be provided to ensure convenient access to activity centers, while encouraging pedestrian activity and reduced reliance on the automobile.

Natural Design Considerations

Objective: Design roadways to follow natural contours in rural areas and steeper topography, except where safety, grading or strong design considerations suggest otherwise.

Policy: Design roadways to minimize grading and the height of cut and fill slopes.

Policy: Provide for wildlife as required in the Wildlife Corridor Study.

Bus Routes

Objective: Otay Ranch land use, mobility and transit plans shall be coordinated with local and regional transit plans to ensure that Otay Ranch villages are served at the earliest stages of development.

Policy: Provide areas for interconnection of various modes of transportation.

Policy: Provide transit/bus stops/shelters in village core areas and close to service/commercial uses. Provide waiting and bike storage facilities at one transit stop within each village core.

Policy: Coordinate bus stations with transit stations as set forth in the trolley section.

Policy: Coordinate route and stops with light rail transit districts.

Policy: Shelter design should be compatible with village character/theme and may, therefore, vary from village to village. Shelter maintenance responsibility shall be determined during the design process.

Policy: Encourage local loop bus routes connecting the villages to the Eastern Urban Center and to other regional transportation systems, parks, schools, the university and recreational areas.

Trolley System

Regional transportation plans envision the expansion of the light rail system to connect the existing system to the international border and various urban areas, including Otay Ranch.

Objective: The Otay Ranch land use and mobility plans shall incorporate regional plans for the expansion of the light rail system.

Policy: Coordinate with MTDB, CVT and other transit agencies to provide for the integration of the light rail line into villages 1, 5, 6 and 9, Park and Ride and the Eastern Urban Center.

Policy: Provide for reservation of space for the light rail line within the identified villages/areas. Locate stations/stop areas, consistent with MTDB standards, within the village cores/areas identified for transit.

Policy: Bus stop locations should be coordinated with future light rail transit stops and should follow the same design guidelines.

Cart Travel

In concert with the primary objective to reduce the number of automobile trips, the interior road systems will be designed to provide for cart travel, per the previous sections. These carts are commonly described as golf carts and can either be electric or combustible engines (electric is preferred for air quality reasons). Cart travel is permitted on roads with posted speed limits of 25 mph or less. On roads where posted speeds exceed 25 mph, separate trails will be provided for cart travel.

Objective: To reduce reliance on the automobile, the Otay Ranch road system shall be designed to provide for cart travel.

Policy: Underpasses/overpasses should be provided at strategic locations to minimize cart/automobile conflicts on major arterials. Locations should be determined at the SPA/Specific Plan level.

Policy: Cart parking facilities should be located within village cores.

Policy: Coordinate cart travel consistent with the policy contained in the village roads section.

Bicycle/Pedestrian Paths

A system of regional and local bicycle and pedestrian paths is incorporated as a critical mobility component of Otay Ranch. The local paths are within villages and connect to the regional trails.

The internal street systems provide paths along the Village Entry Streets. These paths will serve both pedestrians and bicycles and are separated from vehicular traffic on this type of street. Residential Collector and Local Streets will serve as bike routes, where bicycles share the roadway with vehicles.

Grade separated bikeways will be considered along La Media from Wolf Canyon to Southwestern College and through Wolf Canyon across the EUC to Salt Creek.

A trail system shall be provided through open space areas. These shall be looped systems to provide for a variety of lengths of rides. In these areas, pedestrian, bike and equestrian trails will overlap.

Objective: The bicycle and pedestrian path system should provide for a safe continuous pedestrian and bicycle circulation system to all parts of villages.

Policy: The path system should connect to the village core to encourage alternate means of travel.

Policy: Pathways should be two-way routes.

Policy: Signing should be posted at intervals, directing bicyclists and pedestrians to the appropriate side of the trail.

Policy: Drainage inlet grates, manhole covers, etc., on trails should be designed to provide adequate surface for tire or foot travel.

Policy: At-grade trail crossings should be provided for at signalized intersections.

Policy: Bicycle storage facilities should be provided within village cores, at transit and bus stops.

Policy: Underpasses/overpasses will be provided at strategic locations to minimize automobile and trail user conflicts at arterial highways. Specific locations should be determined at the SPA/Specific Plan level.

Bike, equestrian and other recreational trails are also planned as described in the Chapter 4, Parks, Recreation, Open Space.

Scenic Corridors

The Otay Ranch contains a number of valuable scenic resources such as natural landforms, rock outcroppings, unique vegetation, lakes and view sheds, which merit protection along arterial roads.

Objective: Protect and enhance valuable scenic resources and views throughout the Otay Ranch.

Objective: Design roadways and/or adjacent villages to protect visual resources.

Objective: Coordinate with adjacent jurisdictions to encourage protection of scenic corridor resources outside of Otay Ranch.

Objective: Coordinate with MTDB and other agencies regarding facilities they may need to locate within scenic corridors and suggest measures to ensure compatibility.

Policy: The following Otay Ranch routes are designated scenic roadways:

Telegraph Canyon Road - provide for setbacks and landscaping along this edge. Variable setbacks, land form grading and recognition of existing swales in final grading is desirable. No existing vegetative character exists. It is recognized that modification to existing landforms will occur.

Orange Avenue - from the western property boundary to SR-125. The roadway should be sited in the canyon bottom to preserve side slopes and vegetation wherever possible. Protect steep slopes and vegetation on the north slope (south facing) between the western property line and Paseo Ranchero. Further east, to Otay Lakes Road, topography of the north slope should be preserved. East of Otay Lakes Road and the entire south side should be contour-graded with extra setbacks and revegetation.

Otay Valley Road/Hunte Parkway - from the western property line to Orange Avenue. The road provides expansive views of the Otay River Valley, Rock Mountain, and Salt Creek. Protect views into the valleys and propose sensitive grading, setback and architectural controls along this edge.

Otay Lakes Road - from the Mary Patrick Estate to the Daley Quarry. This stretch of road provides opportunities for views of the Otay Lakes and other landforms. Preserve corridor views to the lakes as the road passes through the resort center. Carefully site architecture and use setbacks with height controls to preserve views. Continue an open, non-urban character along this corridor.

Proctor Valley Road - from Salt Creek Ranch to Highway 94. This road passes through open space areas providing views to Jamul, the San Miguel Mountains and Proctor Valley Creek. Final alignment should seek to preserve significant rock outcroppings and landforms, and preserve views to the Upper Otay Reservoir. Design for more urban character at the village center. In the Jamul area, provide large setbacks and fencing to project the developed rural ranchette character of Jamul.

Implementation Measure: Develop guidelines for setbacks, grading and landscaping along scenic corridors in conjunction with the Overall Ranch Design Plan.

III. Existing Conditions

The Otay Ranch is served by existing Chula Vista and County of San Diego roadways.

Existing Roadways: Telegraph Canyon Road/Otay Lakes Road has been upgraded to a full six lane prime arterial up to Hunte Parkway, a four lane major roadway from Hunte Parkway to Wueste Road and then transitioning to an existing two lane roadway which travels through the property, eastward to SR-94.

Proctor Valley Road is an unpaved east-west roadway through the Proctor Valley Parcel, beginning near Upper Otay Reservoir and ending at SR-94 (the most easterly portion of Proctor Valley Road is paved).

State Route 94 is a paved, two-lane roadway running near the easterly Otay Ranch border from Jamul to Dulzura.

Otay Valley Road is a paved two-lane road running east-west from I-805 to the southwesterly corner of the property. Otay Valley Road then turns south and becomes Heritage Road after crossing the Otay River Valley.

Public Transit: No light rail transit lines cross or run adjacent to the property. The South Bay Rail Transit Extension Study (by Frazer Engineering, Inc. for SANDAG, February 5, 1991) recommends a light rail transit corridor through the property as a future transit project. The only existing bus service in the vicinity of the property is provided by Chula Vista Transit along Telegraph Canyon Road/Otay Lakes Road.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents².

V. Processing Requirements

Future Otay Ranch applications for development approvals shall comply with the following:

A. SPA Requirements

- Build-out transportation model analysis to the extent that SPA plan changes approved GDP/SRP system or generation.
- Phased transportation model analysis to show impacts to system with planned facility construction for SPA level development (including offsite roads).
- Review and refinement of land use plan for implementation of pedestrian and transit-oriented design, Transit Demand Management and Fixed Guideway Transit for Otay Valley Parcel villages and Eastern Urban Center.
- Phased Transit Plan.
- Phased Bicycle Plan.
- Phased Trail Plan.
- Modification of above plans, if needed.

- Prepare Public Facility Financing and Phasing Plan to assure construction of facilities concurrent with demand – include on-site and off-site facilities to maintain threshold conformance.
- Develop/amend/revise financing mechanism for transportation facility construction (DIF).

B. Tentative Map Requirements

- Conditioned to provide on-site transportation facilities.
- Conditioned to adhere to Transportation Facility Phasing Plan for on-site and off-site facility thresholds.
- Conditioned to provide off-site transportation facilities as required by Public Facilities and Financing Plan.
- Conditioned to participate in financing mechanism for transportation facilities (DIF).

C. Final Map

- Implement tentative map conditions.
- Bond and provide for construction of improvements.
- Secure rights-of-way.

D. Building Permit

- Payment of fees (if appropriate).

1 On roads where posted speeds exceed 25 mph, separate trails will be provided for cart travel.

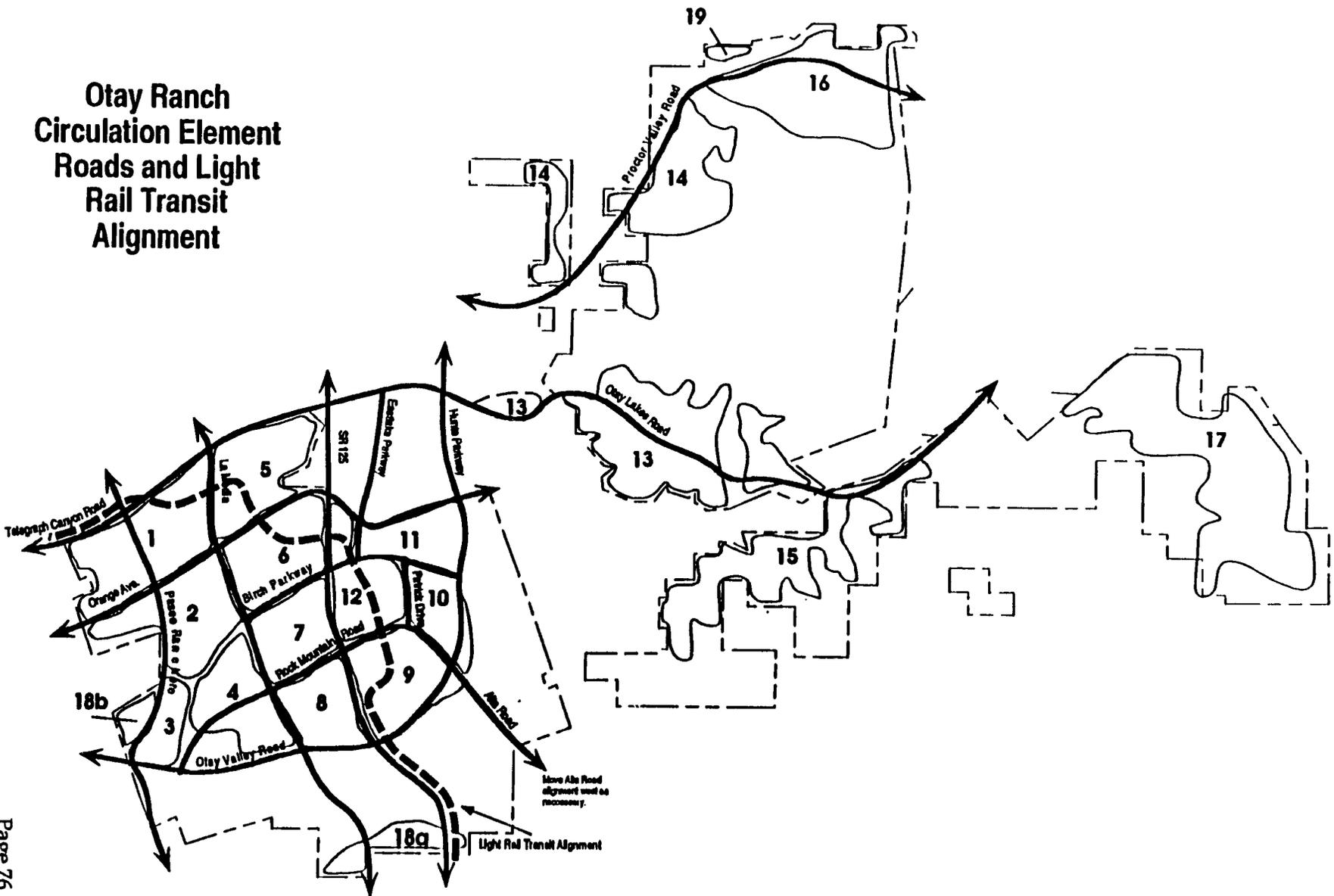
2 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555.

**Otay Ranch Facility Implementation Plan
Transportation System Facilities**

Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Attachment A

Otay Ranch
Circulation Element
Roads and Light
Rail Transit
Alignment



Arts and Cultural Facilities

I. Goal

Plan sites for facilities dedicated to the enhancement of the arts at the community level, which can contain indoor and outdoor facilities capable of supporting community theater, training and exhibition of art and sculpture, musical training and concerts, film and cultural festivals, public meetings, and other community events.

II. Existing Conditions

The South County has few artistic and cultural organizations, programs or facilities to meet the current and growing needs and interests of South County residents. The area has one small historical museum, emerging and diverse dance companies (Mexicaotle, Pasacat, Samahan Dance, Bonita Ballet, and a folklorico group), two visual artists guilds (Bonita and Chula Vista) and two community theaters (Lambs Players of National City and On Stage Productions of Chula Vista). In addition to the cultural programs offered by these organizations, Chula Vista Park and Recreation Department, Chula Vista Libraries, Southwestern College and area schools also offer cultural and artistic programs for area residents.

The County of San Diego and City of Chula Vista have communities which foster interest in the arts. The County Public Arts Advisory Council stimulates interest in the arts through public awareness, education and outreach activities. The Chula Vista Cultural Arts Commission emerged from the Chula Vista 2000 planning process to convene cultural resources, assess community needs and enhance the cultural diversity and artistic offerings for Chula Vista residents.

III. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

The development and full build-out of the Otay Ranch make additional arts and cultural amenities, programs and facilities desirable. Arts and cultural

facilities are not needed by a community, but rather, enhance the quality of life in a community. Therefore, a precise demand for services/facilities cannot be readily calculated. The Interjurisdictional Task Force convened city, county and citizen representatives to determine appropriate facilities for a new community to respond to the desires of the community.

IV. Facilities

The future residents of Otay Ranch will desire additional arts and cultural facilities. Cultural facilities located in the Otay Ranch should be easily accessible to the public and be designed for the presentation of both educational and cultural programs. Consideration should be given to location of some multi-use facilities and the cultural complex in a park setting. Cultural facilities should be designed in consultation with art design professionals qualified to design facilities which meet the specific needs of the artists and residents who will use the facilities.

The Community of Otay Ranch should encourage artistic and cultural expression through:

- development of an art and cultural complex,
- village art and cultural facilities, and
- placement of public art and design elements.

These amenities should incorporate and preserve the area's heritage, while promoting the rich multi-cultural and artistic diversity represented in the South County. Consideration should be given to artistic and cultural expression through public art at parks and recreational facilities, libraries and other public buildings.

Multi-Use Cultural Complex: It is recommended that one 66,210 sq. ft. multi-use cultural complex be constructed in Otay Ranch. This facility includes a 36,850 sq. ft. central library and 29,763 sq. ft. ² cultural arts center. The size of the Multi-Use Cultural Complex may be reduced if library facilities are provided in seven urban villages.

The preferred location for this Multi-Use Cultural Complex is within the Eastern Urban Center. This location can add to the vitality of the urban community and take advantage of shared parking and complimentary services with adjacent uses. This facility may include:

- one 250 seat and one 100 seat theater appropriate for musical, theatrical, or educational uses.
- library (See Library Master Plan)
- one separate art museum/gallery
- meeting rooms of various sizes
- government art and cultural administrative offices
- parking

Both the building and the surrounding landscape can have artistic value and merit. It is recommended that a design competition be initiated for the architectural design of the complex. It is further suggested the cultural complex should stress binational themes to take advantage of its proximity to the Mexican border.

It is anticipated the art museum/gallery will display private and traveling collections. The cost of acquisition and maintenance of a permanent collection may be prohibitive. The 5,000 sq. ft. art gallery's would include display, storage, shop and office spaces. The art museum/gallery and/or the theater space could be operated by a private non-profit organization(s), or an institution of higher education. The complex could be integrated with an institution of higher education, however it should maintain its distinct community character and identity.

A second siting option is to locate the multi-use cultural arts facility on a site which could link the Eastern Urban Center and the university site. This location should be a prominent one which visually and functionally ties the university to the Eastern Urban Center and is symbolic of the cultural link between the university and the Community of Otay Ranch.

Multi-Use Village Facilities: It is recommended that seven³ 2,500 sq. ft. multi-use village facilities be constructed to serve the villages of the Otay Ranch. These facilities could promote art and cultural activities, increase

community access and participation in the arts, educate residents, and develop audiences for art and cultural organizations. Local institutions should select artistic and cultural activities which are responsive to the interests of residents.

A multi-use public space in each village should be available for various artistic and cultural exhibitions and educational activities. This space should be housed in public buildings such as a, school, community park, senior citizens center or fire station. Each village facility should emphasize a specialty such as dance, theater, painting, sculpture, music, history, or video/photography, which adds to the distinctive character and identity of each village. While these facilities are based on different artistic or cultural themes, they should also be adaptable for other community uses such as exhibitions, classes, meetings, lectures and receptions. The use of each village facility should be limited to public benefit purposes and complement the functions of other public facilities, such as fire stations.

Public Art and Architectural Design: It is recommended that a minimum of two site-specific art locations and one public performance space per Otay Ranch village be provided in public spaces such as squares and medians. Architectural design of buildings can be considered a form of artistic expression when it helps to create or influence the cultural "theme" for a community. Creative architectural elements and design should be used to create unique, distinctive and diverse buildings whose character will help provide a "sense of place" and further differentiate one village from another. Public art and artistic public improvements should be visible in the design of community elements such as landscaping, gateways, signage, street lights, paving materials, fencing, bulletin boards, transportation stops, street furniture and other key focal points.

In addition to the multi-use cultural complex, other buildings can be used to display various art-forms. San Diego County policy F23 requires one-percent of the total cost of public facility building construction be used to commission on-site artwork. This insures local citizens accessibility to public art in public buildings. Privately owned buildings can also be encouraged to display works of art.

Another way to meet the desire for increased public art is through the placement of "site-specific art." This form of artistic expression should reflect the interests and tastes of the residents of that particular community as it grows and matures. Site-specific art should be reviewed, selected and placed using a process which ensures it reflects the interests of residents.

Publicly-sited art evolves and multiplies over time with the participation of residents and should not be developed out of context. Such art fits within and enhances the environment in which it is placed. Some sites in each village can be reserved within public areas such as parks, pedestrian walkways, squares, and other appropriate spaces for the future placement of art work. Other locations will be created or used as the community develops. The placement of public art can be permanent, rotating or temporary.

Areas where the public can congregate within village centers and within the Eastern Urban Center should have places for "street" performances. Spaces such as raised platforms and walkways, partially enclosed areas and pedestrian malls afford performers places to express their artistic form to the public. Consideration shall also be given for future ordinances or funding programs that relate to the display of public art.

V. Processing Requirements

A. SPA Requirements

- Specific land and space requirements identified for arts and cultural facilities as part of the EUC SPA processing.
- Specific multi-use cultural facility site identified and reserved (if appropriate).
- Alternative financing methods explored.
- Establish design guidelines.
- Develop design review criteria and process.

B. Tentative Map Requirements

- Land reserved consistent with SPA plan and financing/funding program.

- Funding identified.
- Implement design guidelines.

C. Final Map Requirements

- Implement conditions.

D. Building Permit

- Payment of impact fee (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

² Methodology: Population x .37375 sq. ft. = total cultural arts facility requirement

³ Villages 2, 5, 7, 9, 11, 13 and 14.

Cemetery Facilities

I. Objective

Identify and preserve adequate cemetery site to serve the Otay Ranch Project Area.

II. Existing Conditions

The City of San Diego, private corporations, and various religious institutions, provide cemetery and mausoleum services for the existing residents of Otay Ranch and neighboring South County communities. The existing conditions analysis considers the major burial facilities within the central and South County region.

A. Private Cemeteries

The three privately owned facilities located in the South County are Glen Abbey Memorial, La Vista Memorial and Greenwood Cemetery.

Glen Abbey Memorial: Glen Abbey is the closest cemetery to Otay Ranch, located off Bonita Road, east of I-805. This is a publicly owned non-sectarian corporation and has 112 acres, of which 42 are developed. There are approximately 2,900 graves to date, with 6-7,000 immediately available and a full development potential of 200,000 grave sites. All types of burial services are available at this facility.

La Vista Cemetery: La Vista Cemetery, is a privately owned cemetery located in Lincoln Acres, north of SR-54, and east of I-805. This cemetery has 30.2 acres and has 6,600 graves with 10 acres developed. This is one of the oldest cemeteries in the San Diego area. It was established in 1861 and has approximately 1,000 unrecorded grave sites. There are approximately 25,000 spaces still available in the cemetery.

Greenwood Cemetery: Greenwood Cemetery, opened in 1907 and is located north of Imperial Avenue, east of I-805. This cemetery has 100,000 graves and 100 acres developed. Twenty acres of land are undeveloped, with a potential of an additional 100,000 grave sites still remaining. The facility is projected to reach its full capacity in the year 2040. This is also a non-sectarian, public corporation cemetery that offers full burial services.

B. Public Cemeteries

There are two public cemeteries located in the City of San Diego, Mt. Hope Cemetery and Holy Cross Cemetery.

Mt. Hope Cemetery: Mt. Hope is operated by the City of San Diego and is located east of I-15 and south of Market Street. This cemetery is approximately 100 acres, and has 69 acres developed with 69,000 graves. There are approximately 50,000 grave sites to be developed. Mt. Hope Cemetery was established in 1859 and is a non-sectarian facility. As a public cemetery, Mt. Hope can only offer ground burial sites.

Holy Cross Cemetery: The Holy Cross Cemetery is a Catholic facility which is located east of I-805, and south of SR-94. This cemetery is in the process of expanding and has 39 acres developed with 50,000 burial sites. The City of San Diego is purchasing adjacent lands to expand this cemetery to accommodate approximately 900 burials per year. The Holy Cross Cemetery was developed in 1917 and is the only Catholic cemetery in the San Diego region. They intend to operate as long as adjacent land is available for expansion.

In summary, there are approximately 375,000+ burial sites available or to be developed, not including the Holy Cross expansion, on 150+ acres within the Central and South County regional areas of San Diego County. All of the cemeteries have burial sites available now and four offer mausoleum, columbarium, and crypt space, both above and below ground.

III. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

The demand for cemetery facilities generated by the full build-out of Otay Ranch is 0.0000043 acres/resident/year. This equates to a generated demand for approximately 34 acres over the life of the project after build-out (for 100 year service life). The analysis of the demand for cemetery facilities, anticipates that new cemetery facilities are not needed, based on the projected population in the Central and South County Regions and the proposed Otay Ranch population of 79,634. There are approximately 187 acres available in cemeteries in the area.

Assumptions:

Mortality Rate: 7.18 deaths per year per 1,000 people (1989, San Diego County)

Deaths Per Year: 564 deaths/year for population of 78,555 persons (Otay Ranch at Build-out)

Burials: Approximately 25-43 sq. ft./person

Cremations: 53% of all burials are cremations; 2.5 sq. ft. of ground space or 2.5 linear ft. of wall space. 50% of all cremations are interred (Source: Telophase, Neptune Society, Oceanside Mortuary - 1991)

ACREAGE REQUIREMENTS

	Land	Total	
	<u>Disposition</u>	<u>(sq. ft.)</u>	<u>Acres</u>
Deaths	572	n/a	n/a
Burials	269	43.0	.27 ²
Cremations	303		
Internments	151	2.5	.01
Scattered Ashes	151	n/a	n/a
Other Land	n/a	n/a	.07
Acres/Year			.35
100 Yr. Planning Horizon			35.0

IV. Facilities

The future residents of Otay Ranch will not generate enough demand to require cemetery facilities within Otay Ranch at full development. There are presently

150+ acres of land available within the South County area to accommodate the future demands of Otay Ranch and the South County region. Combining the projected population, with the proposed population of Otay Ranch, it is estimated that approximately 4 acres of burial and cemetery space will be needed per year. Utilizing the demand generated analysis, current trends in burial practices, estimated population, and the existing cemetery facilities surrounding Otay Ranch, it is anticipated that no additional facilities will be required within Otay Ranch to meet the future needs of the Otay Ranch communities for a period of 100 years after build-out.

Cemetery and memorial gardens typically serve a much larger region than other community services and the trends for alternative burial or memorial sites, including the utilization of cremations, is on the rise. Burials within a local community or region, do not always occur in that community, and in many instances, other arrangements for burial outside of the area or state occur due to family desires and/or military circumstances.

Small one to five acre memorial gardens adjacent to religious facilities could be provided within villages to allow for future burial or memorial trends. These gardens could provide for above or below ground internments for crematory burial sites or simply be a memorial area within a park-like setting. The size and location of the facility should take into consideration the surrounding land uses and the religious institutions' size, scale, and function for which it will serve. Further analysis and consideration of desirability and location should occur as SPA plans are prepared for the communities within Otay Ranch. Cemetery and memorial gardens are considered compatible land uses surrounding, or on the edge of residential development. Adequate access and parking for the memorial garden should also be provided to accommodate vehicular traffic associated with burial and memorial services. This facility should also provide handicap access.

IV. Processing Requirements

A. SPA Requirements

- Reaffirm the GDP/SRP conclusion that there is existing cemetery space available to serve Otay Ranch residents.
- Determine the desirability of a memorial garden in conjunction with church siting.

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² Based on 43,560 sq. ft. per acre.

Child Care Facilities

I. Threshold

Identify sites for child care and pre-school facilities adjacent to or as part of public and private schools, religious assembly uses, village core employment areas, residential areas and other locations deemed appropriate.

II. Goals, Objectives, Policies and Implementation Measures

Goal: Provide adequate child care facilities and services to serve the Otay Ranch Project Area.

Objective: Identify sites for child care and pre-school facilities adjacent to public and private schools, religious assembly uses, employment areas, and other locations deemed appropriate.

Policy: Site child care facilities compatible with community needs, land use and character, and encourage such facilities to be available, accessible, and affordable for all economic levels.

Implementation Measure: Site child care centers near "Park and Ride" sites, transit centers or other locations accessible to public transportation, where feasible.

Implementation Measure: Site child care facilities and before and after-school programs within and near new school facilities.

Implementation Measure: Participate in exaction for child care facilities if imposed by land use jurisdiction.

III. Existing Conditions

No child care facilities are located within the Otay Ranch. There are 24 large private child care facilities located in Chula Vista, Imperial Beach, National City, Bonita, and the remaining South County region. The existing facilities provide a wide range of child care services, including infant care, toddler care for ages 2-4, preschool, and after school child care for children ages 5-13. Facilities range in size to serve 60-120 children per center, with the average large child care facility approximately 9,000 sq. ft. on 1/2 to 1 acre lots (estimated). Private in-home

child care services average 4-6 children per home and also provide full-service care for all ages. Child care facilities are also provided within numerous religious institutions throughout the South County area and include infant, toddler, preschool, day school, and after school care. Both formal large facility and home-based (paid) types of child care and informal (non-paid) methods are necessary to meet the needs of children and families. The diverse types of care available represent the varied interests and abilities of parents to provide for their child's development.

All licensed child care facilities must meet strict state standards regarding the number of children/adult, required outdoor play areas, facility design and square footage of area/child. In addition, applicable County and City zoning ordinances and building codes must also be met.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Child care facilities and services are customarily provided by the private sector institutions, religious facilities, or home child care providers. The development of Otay Ranch, therefore, will require that land for child care facilities and services be available to serve the needs of the future residents and employment centers of Otay Ranch. The estimated demand for child care facilities for Otay Ranch at build-out is based upon a youth population of 18,960 children ages 0-13 located in either private large facilities, religious institutions, or home child care providers. This conclusion is based on the following assumptions and methodology.

Assumptions and Methodology

Estimated population of Otay Ranch - 79,000 residents and existing population ratios:

**Age Distribution And
 Need For Formal Child Care Services**

	Infant/ Preschool (0-4)	School Age (5-13)	Total
Child Population	6,320 ²	12,640 ³	18,960
Children with working mothers	2,591 ⁴	5,688 ⁵	8,279
Children needing child care	3,476	3,034	6,510
Children needing formal child care	1,770 ⁶	1,517 ⁷	3,287 ⁸

Formal child care services include those offered by both large group facilities and home-based family child care services.

Not all children in need of child care are served by formal child care programs. A majority (54%) of children are cared for by a relative or in the child's home (Hofferth, Sandra L.: "What is the Demand for and Supply of Child Care in the United States? Young Children: National Association for the Education of Young Children, Volume 44, Number 5; 1989). A mixture of home-based and facility programs are needed since some parents perceive the quality of home-based programs to be superior (especially for young children), while others believe facility-based programs improve the child's educational and social development (California Child Care Initiative, 1987).

Twenty to 26 percent of those children who are age 5 - 13, with working parents, and not in child care, may need some form of adult supervision after school (U.S. Census Bureau, 1985). Approximately 1,400 school-age children may be unsupervised after school at full build-out of Otay Ranch. Adult supervision for these children is offered by programs such as school sponsored after-school clubs and activities, park and recreation programs, social-recreational programs (offered by organizations such as the YMCA, Boys and Girls Clubs, churches and

scouting groups), parent co-ops, latch-key reassurance programs (e.g. Children's Hospital), and home provider networks. Some of these services will require facilities, while others can be co-housed with existing organizations or use flexible, multi-purpose locations. Facility requirements and locations for social and recreational programs are addressed in the Social and Senior Services and Parks, Recreation and Open Space Master Plans.

V. Facilities

The future residents and employment centers in Otay Ranch will require child care facilities and services to ensure adequate child care at full build-out of the development. By looking at the demand generated, the estimated population and the existing child care facilities surrounding Otay Ranch, it is estimated that a variety of child care be provided to accommodate an estimated youth population of 18,960 children.

The total number of facilities may vary due to population distribution, mix of in-home and facility-based child care, employer operated facilities, work place changes, and changes in the public education system. The most responsive approach will take into account the varying needs of diverse families, and respond to the development of facilities operated by church, non-profit and commercial vendors, as well as village plans, which are conducive to the supervision of school-age children by school and community programs.

Presently, most child care facilities are privately owned and operated or are associated with religious facilities. However, trends toward some public child care or extended care standards are being considered nationally. Otay Ranch should consider that public child care facilities may be developed in the future, and therefore, recommendations for locations, facility requirements, and guidelines are included in this plan.

Secondly, employer-assisted or operated child care facilities and services should be encouraged within Otay Ranch. Employer assisted child care services have been shown to increase productivity by decreasing absenteeism and turnover, improving recruitment and retention of good employees and increasing employee moral. Moreover, these services may enhance a company's public image and community visibility.

Traditionally, children were left at home, or near the home, but the shift is to bring children closer to the work site so parents can spend more time with them. Child care facilities closer to the work place also allow parents to come for lunch or visits during the day and give the child an added sense of security.

Child care regulations have been created to ensure the child's immediate and essential needs for health, safety, and general welfare. While these standards are consistently improving, they cannot address the full range of quality issues in child care design and programming. The majority of children today spend at least part of the day in a child care setting outside of the home. Because this time is such an important part of the child's overall physical, intellectual, and social development, it is essential that it be spent in an environment that provides the people, space, and activities for healthy growth.

Child care services for a total of 3,287 children ages 0 to 13 years should be provided. 52% provided by large group facilities with an average capacity of 90 children = 19 facilities. Each village may have a mix of child care providers, such as one school, one church, one non-profit, and one commercial facility. Additional care (48%) would be provided by home-based family services. Child care facilities may be located within private homes, village centers, office, government, and industrial complexes, and/or adjacent to public and private schools when appropriate. Commercial child care centers should be sited on 0.5 to 1.5 acres/sites, depending on the site configuration, size of the center and the number of children in the facility. These facilities include 35 sq. ft./child for indoor space and 75 sq. ft./child for outdoor play area. The average formal child care facility is 9,000 sq. ft., serving approximately 90 children/center. The facility should include amenities such as staff offices; secretarial space; staff lounge; class rooms; multi-purpose room; resource center; kitchen; bathrooms (separate children from adults); reception areas; bulletin board; "cubbies" (storage) for every child; nursery; parking; and covered outdoor play area. 20 parking spaces are required for a 9,000 sq. ft. facility.

Site design criteria should include:

- Access to and potential for sharing services with existing community resources, such as schools, libraries, parks, offices and industry complexes, neighborhood centers, and shopping areas.

- Ease for vehicular and pedestrian access and approach to the facility, with access for parents to drop off and pick up children, without cross traffic conflicts.
- Buffering or screening out unpleasant or dangerous aspects of the surrounding environment.
- Outdoor play area - landscaped, secure with adequate sun and shade protection for outdoor play activities and equipment.
- Designated fire and emergency services readily accessible.
- On the a.m. traffic flow side of a major road.
- 20 parking spaces for a 9,000 sq. ft. facility.

IV. Processing Requirements

A. SPA Requirements

- Specific acreage requirements identified, design/co-location guidelines developed and land designated for Community Purpose Facility uses.
- Develop further implementation guidelines for family child care homes within residential neighborhoods for the first SPA for use on the entire project.
- Develop design guidelines that address child care facilities in the design of public and private buildings for the first SPA for use on the entire project and facilitate the development of family day care homes in residential planning.

B. Tentative Map Requirements

- Land zoned Community Purpose Facility consistent with the SPA designation.
- Implement design guidelines.

C. Final Map Requirements

- Implement conditions.

D. Building Permit

- Payment of impact fees (if established).

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- 1 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximated population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
- 2 Based on 8% of the total population for the San Diego Region (SANDAG Jan.-Feb. 1992 "Info").
- 3 Based on 16% of the total population for the San Diego Region (SANDAG Jan-Feb 1992 "Info").
- 4 41% of children age 0-4 have both parents working outside the home in the San Diego Region (SANDAG July-Aug..... 1992 "info").
- 5 45% of children age 5-13 have both parents working outside the home in the San Diego Region (SANDAG July-Aug. 1992 "Info").
- 6 55% of children 0 to 4 years are in formal care based on a national average. (U.S. Census Bureau Study: "Who's Minding the Children?" 1985).
- 7 24% of children ages 5 to 13 years are in formal care based on a national average. (U.S. Census Bureau Study: "Who's Minding the Children?" 1985).
- 8 Total number of formal (home-based and facility) child care slots needed. 48% are provided by home-based family providers, while the remaining 52% are provided in facilities operated by schools, churches, non-profit corporations and proprietary companies (existing ratio).

Health and Medical Facilities

I. Threshold

Identify a general location within Otay Ranch for public and private health organizations, charities, and private adult care and mental care facilities.

II. Goals, Objectives, Policies and Implementation Measures

Goal: Ensure provision of and access to facilities which meet the health care needs of Otay Ranch residents.

Objective: Identify a general location within Otay Ranch for public and private health service organizations, charities, and private adult care and mental care facilities. (See the Community Purpose and Regional Purpose Facility section of this report.)

Implementation Measure: Establish a cooperative process among land use jurisdictions to assure that County health facilities are sited in locations that best serve the region's population irrespective of jurisdictional boundaries, while considering city or county general plans and community standards.

Implementation Measure: Health Service facilities will be sited in the most appropriate location based on appropriate criteria.

Policy: Regional Purpose Facilities are structures within which the public gathers to secure public goods or services provided on a regional basis, such as: general public offices, justice, court, detention, laboratory, health, medical and social facilities.

Implementation Measure: General location for public health facilities within the plan area should be convenient to public transit.

Implementation Measure: Encourage areas for small scale medical services, such as physician offices and clinics in appropriate residential "villages."

Implementation Measure: In siting health service facilities, consideration shall be given to proximity to potential clients, adequacy of public and private transportation and parking at facilities, potential for co-siting facilities, acceptability to the host community, safety of staff and clients, and ease of

referral to frequently used services. These criteria should be applied irrespective of city/county jurisdictional boundaries.

Policy: The opportunity should be provided to health care providers to coordinate health facilities as part of the SPA review process.

Implementation Measure: Encourage service providers to work together to jointly use facilities.

Objective: Determine the relationship between new growth and the need for County health facilities.

Objective: Mitigate the impacts of new growth on the need for County health facilities.

Policy: Designation of land for regional purpose facilities does not relieve an applicant of any independent requirement to pay fees and/or reserve or dedicate land for a public facility.

Implementation Measure: Participate in a development impact fee for health facilities.

III. Existing Conditions

Medical and health programs are primarily provided in the South County area by:

- Public Sector (e.g. County Health Department, Military, Veterans Administration, Department of Rehabilitation, California Children's Services)
- Private Non-profit Organizations (e.g. Epilepsy Society, Visiting Nurses, Cancer Society, Scripps Hospital, Sharp Health Care, Kaiser Permanente)
- Commercial Businesses (e.g. medical doctors, dentists, health educators)

The public sectors, particularly state and county governments, provide some basic medical services to needy segments of the population such as the

unemployed, poor, indigent, elderly, mentally ill, and persons with disabilities. The federal government provides funding and facilities for health care services for veterans and military personnel and their dependents. The State offers services and contracts through the Department of Rehabilitation.

A. Public Sector

County of San Diego: Many County programs are mandated by federal and state law, while others are developed locally to meet local health needs. During the past decade, spending for health and medical services by the public sector has not kept pace with inflation and population growth. Net per capita expenditures in constant dollars are lower in almost all service areas. The County of San Diego continues to be pressured to use very limited discretionary funds for other mandated services. The State made additional dramatic funding cuts in 1990 for mandated physical and mental health programs. The future loss of discretionary funding by the County of San Diego resulted in increased pressure on the cities and private sector to fund more health and human services.

The County Department of Health Services provides services such as:

- alcohol and drug abuse services
- environmental health services
- mental health services
- physical health services, including maternal and child care
- public health services (epidemiology, disease control, AIDS testing, public education, etc.)

Those people using many public health services are working poor who can't qualify for Medi-Cal or other government programs and do not have access to private health insurance at an affordable rate.

At the local level, the County of San Diego has the primary mandate to provide health services to county residents. Health facilities and programs for residents of the entire San Diego region, including both the unincorporated areas and cities, are provided by the Department of Health Services. In 1989-90, net County per capita health care costs were \$18.00¹. The County supports health care programs to prevent disease and health risks, treat existing disease, provide

supportive environments in which individuals may address their problems, and mitigate conditions which are hazardous to health. Other programs include:

- County Patient Support
- Edgemoor Geriatric Hospital
- Emergency Medical Services
- Immigration Health Services
- Primary Care
- UCSD Medical Center
- Adult Special Services
- Community Disease Control
- Records & Statistics
- Crisis Team
- Support Services and Administration
- Alcohol Services
- Drug Services
- Mental Health Services
- Child Care
- Maternal Health

Programs include activities such as immunizations, nutrition, education, AIDS testing, restaurant kitchen inspection and toxic spills response.

Currently, some facilities owned or leased by the County are overcrowded and in urgent need of renovation, replacement, or modernization. County health facility capacity has not been increased sufficiently to meet the demands imposed by an under-served and growing population. The structures of the public health centers are 30 years old and inadequate in terms of space due to the growth in patient flow and clinic activity. A significant shortage of adequate space exists and it is estimated an additional 9,000 sq. ft. of space is needed in seven of the eight public health centers now deemed inadequate (County of San Diego Public Facility Element 1990). The County of San Diego provides services for the Otay Ranch area through the South Bay Public Health Center, located in Chula Vista, where public health services only are provided.

The County also provides physical health, mental health and alcohol and drug treatment services on a contract basis in the general South County area. Regional programs serving the South County are now located in downtown Chula Vista. Government services occupy both owned and leased facilities.

Local Government: The federal and state governments continue to transfer the costs of health services to local governments by mandating services without proportionally increasing funding. During the past few years, the region's incorporated cities, in supporting both health and social services, have been limited, due to limited financial resources and the fact that the County has historically provided these services. Problems which were not apparent when Proposition 13 was passed, such as toxic poisoning, drug-addicted babies, and AIDS are placing additional strains on the state and local government health service dollars.

Problems are also due to limitations in County revenue generating ability and lack of adequate state funding, as well as concerns regarding the County exceeding the Gann limit.

B. Non-Profit Organizations

Health and medical services offered by private, non-profit organizations augment the services available from government. Services are provided through government contracts, grants, fees-for-service, third-party reimbursements, and charitable contributions. Non-profit South County organizations providing health and medical services include hospitals, mental health facilities, community clinics, nursing facilities, home health services and community health education and research organizations.

Hospitals

Residents of South County are served by three hospitals:

1. Sharp Chula Vista Medical Center: 196 bed general acute care facility operated by a non-profit corporation. The hospital has a coronary care unit for 5 patients (including intensive care). The hospital has 20 prenatal beds. Average daily census is 110 patients with an occupancy rate of 56% (full occupancy is considered to be 80%).

2. Scripps Memorial Hospital, Chula Vista: 159 bed general acute care facility operated by a non-profit corporation. The hospital has 20 prenatal beds. Average daily census is 120 patients with an occupancy rate of 75%.

3. Paradise Valley Hospital: 217 bed general medical and surgical facility operated and owned by a church. The hospital also has a rehabilitation center for 22 patients and an acute psychiatric facility for 38 patients. Average daily census is 134 patients with an occupancy rate of 63.6%.

Sharp Chula Vista Medical Center and Scripps Memorial Hospital both are expanding their facilities and services to keep pace with the growing South County population. Hospital services may include outpatient, therapeutic services and community outreach and education.

Mental Health Facilities

The South County community is served by three psychiatric centers:

1. Southwood Psychiatric Centers: a 106 bed acute psychiatric hospital, outpatient clinic, and residential treatment center (Southwood House) operated by a for-profit corporation. Averaged daily census is 36 clients with a 91% occupancy rate. Annual discharges total 356 patients.

2. Vista Hill Hospital: a 77 bed non-profit acute adult, child and adolescent psychiatric hospital specializing in drug and alcohol related problems. Average daily census is 47 clients with a 81% occupancy rate. Annual discharges total 918 patients. The Hospital also offers day treatment and outpatient programs.

3. Paradise Valley Hospital: a 38 bed church related acute care hospital with a 66.9% occupancy rate. Annual discharges total 729 patients. (Note: this facility is a unit within a medical hospital).

The average length of stay for psychiatric patients is 20 days for these facilities.

Community Clinics

The South County community is served by two community clinics located in Imperial Beach and San Ysidro. Community clinics provide primary health care

to low-income and uninsured persons. Clinics tend to be located in lower-income communities to facilitate client access. Some community clinics will play a role in the provision of services associated with preferred provider programs through satellite offices.

Nursing Facilities

Nursing facilities in South County serve a population of approximately 23,705 persons over age 65. Of these seniors, 9,367 are over age 75 (SANDAG Series 6 Forecast). 5% of all seniors live in institutions (2% for persons 65-74 years; 7% for persons 75-84 years; and 23% for persons 85 years and older). It is therefore anticipated that approximately 1,373 South County seniors will need some form of nursing care in 1990. South County has the capacity to serve only 1,200 clients, based on the number of beds available and maximum utilization rates. Currently, South County residents receive additional nursing home services from North San Diego County nursing homes which have surplus space. Demand for services is greatest for Medi-Cal clients.

The South County community is served by nine skilled nursing facilities including:

- Castle Manor Convalescent Center (99 beds)
- Collingwood Manor Intermediate Care Facility (99 beds)
- Continana Convalescent Hospital (98 beds)
- Fredericka Convalescent Hospital/Manor (174 beds)
- Friendship Manor Convalescent Center (104 beds)
- Hillcrest Manor Sanitarium (85 beds)
- Paradise Valley Health Care Center (86 beds)
- Valley View Sanitarium & Rest Home (99 beds)
- Birch-Patrick Convalescent Center (98 bed unit within the Community Hospital of Chula Vista)

Services provided by nursing facilities include:

- acute care
- adult day health care and respite care

- intermediate care
- skilled nursing care
- congregate care

It should be noted that nursing homes can be operated on a commercial or non-profit basis. (Also see Home Health Services in Social and Senior Service Facility Section.)

Community Health Education, Screening and Research Organizations

The South County community is served by health education and research organizations providing services to the residents of San Diego County (See Attachment A).

The services of these organizations are augmented by outreach and educational services of local hospitals, nursing homes, universities and colleges, government departments, and social service organizations. Educational services are provided throughout the County in hospitals, community meeting rooms, schools and health facilities.

C. Commercial Businesses

Physicians

Approximately 5,754 medical doctors (AMA) serve the 2,498,016 residents of San Diego County. The San Diego Chapter of the American Medical Association does not have specific data on the number of doctors serving South County.

Services provided by medical practitioners include:

- general practice medical services
- specialized medical services
- "redi-care" or "urgent-care" services
- sports medicine
- therapeutic and training services for disabilities and imparities (hearing, sight, locomotion)

- laboratory and radiology service
- birthing centers

Chiropractors and Dentists

There are 727 chiropractors serving the residents of San Diego County or an estimated one chiropractor for every 3,243 residents. 1,834 dentists (S.D. Dental Association) serve the 2,498,016 residents of San Diego County.

Allied Health Professionals

Approximately 200 psychologist, marriage and family counselor, and licensed clinical social worker groups and individual practitioners serve the 2,498,016 residents of South San Diego County.

Preferred Provider Organizations

Preferred provider organizations offer services to clients on a "capitated" fee for service rate. Organizations such as Kaiser Permanente Foundation and the Community Care Network offer area employers an alternative to traditional medical insurance coverage. Employees are provided with medical services from a list of member physicians and medical facilities and pay a co-payment rather than an insurance deductible. Kaiser Permanente Foundation provides approximately 20% of all hospital services in San Diego County.

D. Other Existing Conditions and Trends

Demographic and social trends also provide general indications for the types of South County health and medical services which may be needed for the future residents of Otay Ranch. (FutureScan: United Way of San Diego, 1988).

Present Trend

- 3% of the County's population has a developmental disability, including mental retardation.

- Approximately 40% of children and 25% of seniors do not have health insurance and are likely to receive care through community clinics and public health agencies or go without medical care.
- San Diego County continues to have one of the highest incidence of AIDS in the nation.
- 7.9% of County residents are using over-the-counter, prescription, and/or illegal drugs to the extent that it is causing problems in their lives. 12% of adults have a dependency on alcohol.

Future Projections

- The number of pre-school and school-age children will increase by 46.3%, which will increase the need for pediatric and health education services.
- The number of persons 65 years of age and older will be 11.9% of the region's population and half of these seniors will be over age 75. 5% of all seniors live in institutions (2% for persons 65-74 years; 7% for persons 75-84 years; and 23% for person 85 years and older). With changes in the composition of the family and longer life expectancies due to advances in medicine, it is likely the number of senior citizens needing institutionalization and home health services will increase in future years.

The growing percentage of children and senior citizens indicates South County medical and health services need to be expanded to address their growing needs. The growing Hispanic and Pan-Asian populations mean services will need to be sensitive to cultural differences, overcome language barriers, address the client's multiple problems simultaneously, and be more accessible by centrally locating services near public transportation.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents².

Demand was determined by development of a ratio of services to population, based upon services available within San Diego County and the population they now serve. The demand level is estimated through consideration of existing service levels required for a population of 78,555 and the desire to ensure facilities are available to site health and medical services needed by the future residents of Otay Ranch and a portion of the public medical and health services needed regionally.

V. Facilities

It is recommended that governmental agencies and development planners work directly with service providers to identify the need for and location of medical and health facilities in the Otay Ranch.

The demand generated at the build-out of Otay Ranch will require the construction of commercial office, commercial storefront, nursing homes and other medical facilities. The future residents of Otay Ranch will require a "continuum" of health care services including public health, hospitals, mental health, nursing facilities, home health care, community health education and research, and medical practitioner services.

Most services will require location of commercial, non-profit and government service offices within Otay Ranch to meet the needs of area residents. Services such as hospice and trauma care may be available to Otay Ranch residents, but may be located off-site.

Demand for health and medical facilities is derived from demographic trend data, analysis of current services, data from medical facility planners, and discussions with health and medical service providers. Based on these factors, it is foreseeable that the following type of facilities could be required to serve the residents of the Otay Ranch at build-out:

- Expansion of the Public Health Center in Chula Vista or development of one public health satellite office.
- One - 99 bed nursing home of approximately 30,000 to 50,000 sq. ft. each (5% of 3,185³ over age 75 years = 159 needing some form of nursing care with 1/2 (80) being nursing home residents)

- Two commercial home health care offices at 2,500 sq. ft. each (survey of South County home health providers)
- One Drug and alcohol County-contracted, community-based organizations providing prevention, education, early intervention, recovery services and aftercare (County population divided by 60 contractors divided into Otay Ranch projected population = 3.53 providers based on current level of service County-wide)
- Nine public and private community meeting spaces in nine Otay Valley Parcel villages and one in the Eastern Urban Center, which are available for health education and training programs. These may be dedicated spaces under the auspices of sponsoring organizations or shared multi-use space (See Otay Ranch Community and Regional Purpose Facility Implementation Plan) (South County health and medical providers)
- Two commercial ambulatory pavilions with approximately 15,000 sq. ft. to 20,000 sq. ft. of office space housing 8 to 12 physicians and other medical services (Sharp Hospital planners)
- 299 commercial physician, dentist, chiropractic, therapeutic, laboratory, and medical services and supply offices averaging 1,250 sq. ft. each (demographic distribution based on current San Diego County services by profession to population ratio and medical economics studies for private practices)
- Four 6-12 bed group homes for developmentally or physically challenged persons; seniors and (120 California licensed facilities in S.D. County by community care licensing = .048/1,000 population).

Hospitals

Based on existing and projected services provided in the South County, it does not appear an additional acute hospital facility will be needed to serve the residents of Otay Ranch. Both Scripps Memorial Hospital and Sharp Chula Vista Medical Center are have the capacity to keep pace with South County's growing medical needs. The proximity of the Sharp Chula Vista Medical Center to the project also indicates there may not be a need for additional, large scale hospital facilities. Kaiser Permanente has purchased a hospital site at EastLake, adjacent

to Otay Ranch which further decreases the need for a hospital within the Otay Ranch Project Area.

Mental Health Facilities

Mental health facility services include both psychiatric and psychological services. Recent service trends indicate an increase in day treatment and out-patient services as an alternative to traditional therapy in a hospital setting. This change is due to reimbursement restrictions, cost containment measures and changes in delivery methodology. It has not yet been determined if the demand for mental health services in the Otay Ranch will warrant the location of an acute psychiatric care facility or further expansion of mental health facilities serving South County residents. Changes in service delivery methodology will compensate for increased service demand resulting from of Otay Ranch population growth.

Mental health professionals identify a need for community facilities for prevention programs, community education, adult day care programs, and self-help group meetings. Such facilities may be shared with other programs and be co-located in churches or community centers. Co-location of mental health facilities within churches or community centers is a policy issue requiring discussion and review at SPA level.

Community Clinics

Although there is a demand for increased clinic services, funding has not been made available by the government or other sources to expand this service.

Nursing Facilities

The build-out of the Otay Ranch may require the location of additional nursing facilities providing various levels of care to meet the needs of the residents of Otay Ranch.

If existing community averages are used, it is estimated 13.9% of the San Diego County population will be over age 65 by the year 2000 (SANDAG Series 6 Final Population Forecasts). Therefore, an estimated 10,916 residents of Otay Ranch will be over age 65 year of age. Currently, 5% of all persons over age 65 live in

acute care, adult day health care, intermediate care, skilled nursing care or aggregate care. Therefore, approximately 546 people may be in need of full-time nursing care.

Current nursing home demand for persons over the age of 75 in South County would indicate 80 additional nursing beds or a 1 - 99 bed nursing facility may be needed to serve the residents of Otay Ranch, based on current services and projected service utilization.

Space for purchase or lease, which is accessible to the public, and suitable for siting of nursing facilities will be made available within the Community of Otay Ranch.

Demand for nursing home services may decrease by up to 25% if there is a greater utilization of adult day care services. These programs provide activities and supervision for the elderly during the day. Adult day care services are often complemented by home health services. Used together, they can keep the elderly from needing more costly institutional programs and help them maintain their independence.

Although operation of skilled nursing facilities is typically a private sector activity, the County does operate one facility - Edgemoor Geriatric Hospital.

Community Health Education, Screening and Research Organizations

County-wide educational and research services are centrally located within the County and therefore are unlikely to be located in Otay Ranch. However, these organizations may require access to community meeting space for classes, health presentations and self-help groups.

Ideally, preventative medicine education programs need larger classroom seating for up to 100 persons and smaller classrooms seating 50 people. Additionally, some providers may desire satellite office space of 3,000 to 4,000 sq. ft. to house medical directors, educational directors, program coordinators and clerical staff. Community medical education can also be provided within a hospital or through contracts with private or non-profit companies.

Otay Ranch social and community facilities implementation plans call for the location of easily accessible public meeting space within each village and within the Eastern Urban Center. These spaces will be available for use by public and non-profit organizations for community education purposes, satisfying projected need.

Medical Practitioners

The build-out of the Otay Ranch will require private practice doctors to serve the 78,555 residents (also see Attachment B)⁴.

Physicians: Medical planners believe physicians are likely to locate offices in 1) a medical office building adjacent to a hospital, 2) "ambulatory pavilions," or 3) neighborhood single practice medical offices or urgent-care facilities.

Certain hospital-based sub-specialties are likely to locate adjacent to a hospital, including anesthesiology, cardiology, gastrology, neurology, orthopedic surgery, pathology, plastic surgery, pulmonary disease, radiology, thoracic surgery and urology. The facilities for these services will be composed of primarily commercially leased office space in a facility as large as 120,000 sq. ft. on up to a 10 acre site. Such a facility could house up to 80 physicians with their staffs and equipment. If a hospital does not locate in the Community of Otay Ranch, it is unlikely this type of building will be warranted.

The second option for physician offices is likely to be office buildings known as "ambulatory pavilions." Within these facilities, 8 to 12 physicians offer complimentary medical specialties. Patients can receive primary care services, diagnostic and therapeutic services and minor overnight surgical services. Ambulatory pavilions bring services previously available only within hospitals to villages. It is likely 1 to 3 pavilions could be developed at the build-out of Otay Ranch, housing 30 to 60 physicians. Each facility may be 15,000 to 20,000 sq. ft. and be located in a village core or the Eastern Urban Center.

A third option for physician offices is the neighborhood-based, single practice office. Other specialties such as allergy, dermatology, family practice, internal medicine, obstetrics/gynecology, pediatrics, and psychiatry are likely to locate in neighborhood settings. These physicians are also likely to partner with other family practice and general surgery physicians to create "urgent-care" centers.

After-hours care will continue to be a viable neighborhood level medical service. Approximately 50 offices, ranging from 1,250 to 3,000 sq. ft. for each physician, may be needed. These offices should be located in village cores.

Dentists, Chiropractors, and Allied Health Professionals: It is estimated the residents of Otay Ranch may need 58 dentists, based on the number of dentists serving San Diego County residents (1 per 1,362 population). It is also estimated the residents of Otay Ranch may require 24 chiropractors, based on current services available to San Diego residents (1 per 3,243 population). Approximately 82 offices, ranging from 1,000 to 2,000 sq. ft. for each practitioner, may be needed. These offices could also be located in village cores. Additional office space could be needed by licensed clinical social workers, psychologists, and marriage and family counselors.

Space for purchase or lease, which is accessible to the public, and suitable for siting of medical practitioner services will be made available within the Community of Otay Ranch. This ensures services will locate where there is a demand.

VI. Siting/Design

Siting: Locations should be provided for public, private commercial and non-profit health and medical facilities within Otay Ranch. In general, medical and health services are accessible via public transit. Government services and non-profit organizations customarily pay for property (rent or purchase) as do commercial businesses. Siting arrangements may include tenancy arrangements between local governments and non-profit organizations for use and operation of public facilities. Space for purchase or lease, which is accessible to the public, will be available for all public health service locations.

Major medical and health facilities should be immediately accessible via public transportation and located within village cores, the university site, or Eastern Urban Center. All facilities must be accessible to physically challenged persons. Co-location of some types of services may be desirable due to the number of cross-referrals within the health care delivery system. Consideration should be given to convenience of potential clients, adequacy of public transportation, parking, safety of staff and clients, and ease of referral to frequently used

services. Larger facilities should consider location in the Eastern Urban Center to ensure appropriate building scale is maintained within villages.

The Community and Regional Purpose Facility Implementation Plan requires compliance with the Chula Vista City Community Purpose Facility Ordinance. The Ordinance requires new master planned communities to zone 1.39 acres per 1,000 new residents. These zones would permit public and quasi-public land uses with a minimum of regulatory constraints for schools, child care, social services, health services, government services and churches. Use of community purpose facility zones will avoid forcing quasi-public, religious and charitable institutions to compete in the marketplace with "for-profit" enterprises. The zone also minimizes potential conflicts with adjacent uses during the permitting process. Application of the Community Purpose Facility zone should be dispersed in order to avoid undue concentration of such uses in any one area.

It is recommended most public health and medical services are kept in centralized locations for the convenience of South County residents. Villages within Otay Ranch should have "receptor" and/or kiosk information areas for area-wide services, as well as services appropriately provided at the neighborhood level. Additional area growth, including Otay Ranch, will generate demand for additional health facilities, however, a long-range capital improvement program has not yet been developed.

Medical Services: Health planning professionals agree that methods for estimating future health care needs are changing. Recent changes in the delivery of health care have decreased the need for inpatient facilities and increased prevention, education, and outpatient services.

Many more types of health services of the future will be provided in community settings, rather than in traditional hospital settings. A greater percentage of hospital beds will be used for monitoring acute cases, instead of ambulatory surgical patients. Hospital services of the future will most likely be facilitated by pre and post surgical patient services provided in a neighborhood setting. These neighborhood-based services could include most laboratory and radiology work, diagnosis, therapy and after-care. These facilities are easily located within office/commercial zones such as those which will be found within the village core areas and the Eastern Urban Center.

Design: Office and storefront spaces should be the same design as surrounding buildings and take into account the types and needs of clients being served to determine appropriate locations. Residential services, such as group homes for 6 bed developmentally or physically challenged individuals, senior care residences, and substance abuse residential treatment programs should be integrated into a residential setting and "blend in." Residential facilities should also be located within the village core, in close proximity to public and commercial services.

VII. Processing Requirements

A. SPA Requirements

- Specific space requirements identified and land designated for Community Purpose Facility and Regional Purpose Facility uses.
- Conduct facility planning with input from the County Department of Health Services, City of Chula Vista and Area Agency on Aging.
- Encourage cooperation of affected jurisdictions in joint siting of programs and facilities.
- Circulate SPA plans to the Commission on Aging, County Department of Health Services, Area Agency on Aging, Human Services Council and Chula Vista 21 for review and to determine needs for facility siting (if any).
- Consider co-location in or at school sites.

B. Tentative Map Requirements

- Land zoned Community Purpose Facility or Regional Purpose Facility consistent with the SPA determination.

C. Final Map

- Implement conditions.

D. Building Permit Requirements

- Pay impact fee, if established for appropriate benefit area.

1 SANDAG INFO March-April 1993; Health Characteristics - California and Southern California Counties

2 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

3 SANDAG INFO Update; May 1992; 1990 Census Jurisdiction Profile.

4 San Diego Medical Society reference to Medical Economics Magazine, February, 1989.
San Diego County Dental Association. California Chiropractic Association of San Diego County.

Attachment A

Community Health Education, Screening and Research Organizations

The South County community is served by health education and research organizations, providing services to the residents of San Diego County. These organizations include:

American Cancer Society
American Diabetes Association
American Heart Association
American Lung Association
American Lupus Society
American Red Cross
American Social Health Association (Herpes Center)
Arthritis Foundation
Autism Society of America
Burn Institute
California Association for Neurologically Handicapped Children
Center for Neurologic Study
Cystic Fibrosis Foundation
Dental Society
Environmental Health Coalition
Epilepsy Society of San Diego County
Hemophilia Council of California
Indian Health Council
Institute for Child Behavior Research
Leukemia Society of America
March of Dimes Birth Defects Foundation
Medical Society
Muscular Dystrophy Association
National Kidney Foundation
National Multiple Sclerosis Society
National Sudden Infant Death Syndrome Foundation
Optometric Society
Parkinson's Disease Information Referral Center
Planned Parenthood Association
Project Talk

Quadratic Society
San Diego A.I.D.S. Project
San Diego County Safety Council
San Diego Lifesaving Association
San Diego Regional Poison Center
Speech, Hearing and Neurosensory Center
UCSD Teratogen Registry
United Cerebella Palsy Association
United Ostomy Association
Womancare, Inc.

The services of these organizations are augmented by the outreach and educational services of local hospitals, nursing homes, universities and colleges, government departments, and social service organizations. Educational services are provided throughout the County in hospitals, community meeting rooms, schools and health facilities.

**Otay Ranch Facility Implementation Plan
Health and Medical Facilities**

Attachment B

The 78,555 residents of Otay Ranch will required the services of private practice doctors. Medical Economics Magazine (Feb. 1989) recommends the following ratios:

Specialty	Suggested Population per MD	Estimated Otay Ranch MD Demand
Allergy	25,000	3
Anesthesiology	14,000	6
Cardiology	25,000	3
Dermatology	40,000	2
Gastrology	50,000	2
GP/Family Practice	2,000	40
General Surgery	10,000	8
Internal Medicine	5,000	16
Neurology	60,000	1
Obstetrics/Gynecology	11,000	7
Opthamology	20,000	4
Orthopedic Surgery	25,000	3
Otorhinolarynthology	25,000	3
Pathology	20,000	4
Pediatrics	10,000	8
Plastic Surgery	50,000	2
Psychiatry	10,000	8
Pulmonary Disease	100,000	1
Radiology	15,000	5
Thoracic Surgery	100,000	1
Urology	30,000	3
TOTAL		130

Community and Regional Purpose Facilities

I. Introduction

Organizations which provide public goods and services are vital components of a viable community. Neighborhoods depend upon public and non-profit organizations for the services they provide. Such institutions contribute to a neighborhood's identity by establishing a civic presence and creating community identity. It is therefore desirable to plan for public and non-profit institutional uses.

City of Chula Vista: The City of Chula Vista enacted a "community purpose zone" within which community purpose facilities may be located. Community purpose facilities are structures for assembly, as well as ancillary uses such as a parking lot, within a planned community including, but not limited to, those which serve the following types of purposes:

- Boy Scouts, Girl Scouts and similar organization;
- Social and human service activities, such as Alcoholics Anonymous;
- Services for homeless;
- Services for military personnel during the holidays;
- Senior care and recreation;
- Worship, spiritual growth and development, and teaching of traditional family values;
- Daycare facilities that are ancillary to any of the above;
- Private schools that are ancillary to any of the above.

The City of Chula Vista Municipal Code requires new planned communities to identify 1.39 acres of net usable land (including setbacks) per 1,000 proposed residents for community purpose facilities. The total acreage requirement may be reduced, if approved at the SPA level, based on the availability of guaranteed shared parking with other facilities or other community purpose facilities that are guaranteed to be made available to the community¹. The Code also required annual review of individual SPAs to determine the actual market interest and activity. Community purpose facilities may be permitted in other zones through the Conditional Use Permit process.

**Otay Ranch Facility Implementation Plan
Community and Regional Purpose Facilities**

County of San Diego: The County of San Diego does not have a zone or land use designation particular to community purpose facilities. The County generally allows these facilities in zones "by-right" or through the Major/Minor Use Permit process.

The County estimates that it currently provides about 0.14 acres of "regional purpose facility" space per 1,000 residents². The County defines regional purpose facilities as "County Functions and activities including: general offices, courts, detention, warehouse, shop, storage, laboratory, residential, recreation, medical, mechanical, special uses, public common areas and modular units."

Otay Ranch Community and Regional Purpose Facilities Concept: The Otay Ranch Facility Implementation Plans address a variety of facilities which possess qualities that may classify them as a community or regional purpose facilities, as summarized below:

Potential Classification of Facilities

	Community	Regional
Non-profit Ancillary Child Care	Yes.....	No
Health & Medical Facilities		
Public.....	Yes.....	Yes
Non-Profit.....	Yes.....	No
Religious Facilities.....	Yes.....	No
Social & Senior Services Facilities		
Public.....	Yes.....	Yes
Non-Profit.....	Yes.....	No
Civic Facilities		
County Administrative.....	No	Yes
Correctional Facilities		
Jail	No	Yes
Probation	No	Yes

**Otay Ranch Facility Implementation Plan
Community and Regional Purpose Facilities**

Justice Facilities..... No Yes

Law Enforcement Facilities..... No Yes

School Facilities

 Adult (Public)..... No Yes

 Private Non-Profit, Ancillary..... Yes..... No

For a variety of reasons, it is difficult to determine the amount of acreage which should actually be designated for community or regional purpose uses within each Otay Ranch village. The amount of space needed to accommodate some uses, such as a Central Law Enforcement Facility, is known. However, because standards do not exist and service demand varies, it is difficult to quantify the space needs for many other regional purpose facilities.

Additional uncertainty is created because facility financing sources are not now known for expansion of most of the regional purpose facilities. The County of San Diego and the region's cities, through a SANDAG task force, are currently studying imposing "regional impact fees" to fund justice, health and social service facilities, among others.

The desire to designate land for community purpose facilities and regional purpose facilities is further complicated by the land use patterns and intensities proposed for Otay Ranch. The Chula Vista Community Purpose Facilities requirements are based on the assumption that future development will replicate traditional low-intensity suburban patterns, with substantial portions of land used to accommodate the automobile. The Otay Ranch village concept is very different.

The Otay Ranch village concept envisions compact cores with fairly intense mixed-use facilities to create a pedestrian environment. A more efficient use of land is planned through the joint use of facilities and parking areas. An identifiable civic presence is proposed by integrating activity centers and public gathering places (such as churches, child care, schools, and other community purpose facilities) within each village core. It is therefore anticipated that, through the more efficient use of land within a village core, less land may be needed to serve community purpose facilities due to shared parking, shared facilities and more intense development patterns. However, the exact impact of

implementing the village concept cannot be ascertained until the SPA level of planning.

II. Threshold

Implement a Community Purpose Facility zone and a Regional Purpose Facility zone to provide land for religious, day care, health, social, and senior and youth recreation facilities.

III. Goals, Objectives, Policies and Standards

Goal: Designate areas within the Otay Ranch Project Area for religious, ancillary private educational, day care, benevolent, fraternal, health, social and senior services, charitable, youth recreation facilities and other County services.

Policy: For GDP/SRP planning purposes, the City of Chula Vista Community Purpose Facility standard shall be utilized to calculate the amount of land identified within villages for Community Purpose Facility use.

Policy: Regional purpose facilities are structures within which the public gathers to secure public goods or services provided on a regional basis, such as: general public offices, justice, court, correctional, detention, laboratory, health, medical and social facilities.

Policy: Designation of land and/or space for regional purpose facilities shall be considered in conjunction with the Eastern Urban Center SPA.

Policy: Designation of land for regional purpose facilities does not relieve an applicant of any independent requirement to pay fees and/or reserve or dedicate land for a public facility.

Policy: Implement a Community Purpose Facility and Regional Purpose Facility land use designation to provide land for religious, ancillary day care, health, social and senior services, youth recreation facilities and other County services.

Policy: Each SPA shall specifically designate land and/or space for community purpose facilities and regional purpose facilities, sufficient to satisfy community facility requirements.

Otay Ranch Facility Implementation Plan Community and Regional Purpose Facilities

Policy: The land designated may vary from the acreage standard if the land designated is equivalent to the facility square footage assumption underlying the applicable acreage standard due to shared parking, shared facilities, or development intensity, subject to approval by the appropriate jurisdiction.

Policy: Regional Purpose Facility land may be transferred, as needed, throughout the project, with the intent that sufficient land will be designated in the Eastern Urban Center to concentrate uses in an efficient core. There may be some residual need for Regional Purpose Facility land in individual villages for services where decentralized service delivery is advantageous.

Policy: Community Purpose Facility land may be transferred between villages or combined within villages as long as the space requirements are satisfied in each phase.

Policy: Disperse Community Purpose Facility uses throughout the project so that an over-concentration of impacts from such uses (e.g. traffic, parking) does not impact any one portion of the plan area, however permit consolidation of institutional uses where they complement each other and improve service to the community through economies of scale.

Policy: The following criteria shall be employed during the SPA process to locate Community Purpose Facility and Regional Purpose Facility uses:

- facilities shall be located within the village cores.
- facilities shall be encouraged to share parking with adjacent public and private uses.
- facilities and corresponding parking within village cores shall be located and sized to avoid obstruction of pedestrian circulation.
- facilities and other public structures may exceed height, bulk, or set back requirements generally applicable to private uses if such deviations are necessary to enable the structure to become the focal point, "signature piece" or "point of ceremony" of a given village.
- facilities may locate in traditional commercial and retail facilities.

IV. Existing Conditions

A. Religious Facilities

1. County of San Diego

In 1980, there were 752 churches serving 1,874,800 San Diego County residents, or one church for every 2,493 residents, according to Churches and Church Membership in the United States, 1980. The report also concludes that 29.8% of San Diego County residents are religious adherents. The study defines adherents as "all members, including full members, their children and the estimated number of other regular participants who are not considered as communicant, confirmed or full members." Within the County of San Diego, construction of religious or benevolent facilities generally requires the approval of a major use permit.

2. City of Chula Vista

According to a January, 1991 survey conducted by the Chula Vista Community Purpose Task Force, the City of Chula Vista is served by 76 churches with a combined average worship day population of 25,867. As depicted below, over half (54%) of these institutions are small churches with less than 150 attendees per worship day.

Distribution of Churches by Size

<u>Category</u>	<u>Average Attendees</u>	<u>No of Churches</u>
Large	Over 750	9
Medium/Large	501 to 750	3
Medium	251 to 500	14
Small/Medium	151 to 250	9
Small	0 to 150	41

Fifty-two of the churches in Chula Vista own their facility.³ The remaining institutions either rent or lease space. There are 82 acres of religious facilities in Chula Vista⁴. The average church site is 1.57 acres. Within Chula Vista, there are 0.61 church acres per 1,000 population.

Siting of community and regional purpose facilities generally requires the City of Chula Vista to approve a conditional use permit. The City has recently created a "community purpose facility zone" applicable within the P-C (Planned Community Zone). The regulation requires new Master Planned Communities to zone 1.39 acres per 1,000 new residents for community purpose facilities.

B. Benevolent Facilities

According to the City of Chula Vista land use inventory, there are 27 acres of "non-religious community purpose facility" land in Chula Vista. The Chula Vista Human Services Council has estimated that about 30 acres of non-religious community purpose facility acres are needed to serve the City of Chula Vista. Consequently, depending on which methodology is employed, there are 0.20 to 0.22 acres of non-religious community purpose facility land per 1,000 Chula Vista residents. (For specific information on health or social service facilities, see the Health & Medical/Social & Senior Services section of this plan.)

V. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents⁵.

For several reasons, it is difficult for churches and benevolent institutions to secure adequate land in new master planned communities. First, most new developments do not identify or reserve such sites. Second, non-profit entities must compete with "for-profit" commercial, industrial or residential uses for vacant land and pay competitive prices. Third, non-profit entities tend to be at a competitive disadvantage in the market place because property acquisition and development costs must be borne by an emerging population base. Fourth, land use regulations (typically the conditional use permit process) make it difficult, time consuming and expensive for non-profit entities to construct new facilities. Accordingly, providing non-profit and public entities the opportunity to site community and regional purpose facilities within Otay Ranch, in accordance

with the policies recommended above, will require the identification of land for such uses.

Land: The Chula Vista City Community Purpose Facility Ordinance requires new Master Planned Communities to zone 1.39 acres for community purpose facilities per 1,000 new residents.

Applying this factor to the forecasted population generated under the Otay Ranch land use plan would result in the need for 109⁶ acres reserved for religious and non-religious community purpose facilities. Of this amount, 92 acres would be targeted for religious institutions and 18 acres for non-religious institutions.

VI. Processing Requirements

A. SPA Requirements

- Specific acreage requirements identified and land designated for Community Purpose Facility and Regional Purpose Facility uses.

B. Tentative Map Requirements

- Identify land for Community Purpose Facility and Regional Purpose Facility, consistent with the SPA determination.

C. Final Map

- Implement conditions.

¹ Site acreage requirements may be reduced through the use of multi-story structures, if appropriately sited and floor space is guaranteed for community purpose use.

² This equates to about 2,350 sq. ft. of floor area per 1,000 residents. Accordingly, the County notes that a "regional purpose facility" factor could range between 0.5 acres per

Otay Ranch Facility Implementation Plan Community and Regional Purpose Facilities

1,000 population to 0.14 acres, depending on the type of facility (no. of floors, parking structure, etc.).

- 3 Chula Vista Community Purpose Task Force, September 19, 1990.
- 4 Chula Vista Community Purpose Task Force, September 19, 1990.
- 5 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
- 6 Factor times population ($1.39 * (78,555 / 1000) = 109.2$)

Social and Senior Services Facilities

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I. Threshold

Ensure that Otay Ranch Project Area residents have adequate access to sources of governmental and private social and senior services programs.

II. Goals, Objectives, Policies and Standards

Goal: Ensure that Otay Ranch Project Area residents have adequate access to sources of governmental and private social and senior services programs.

Objective: Social and senior service facilities should be sited within Otay Ranch to either provide direct service access or to provide community service information to each village to educate the public regarding available services.

Policy: The needs for social and senior service facilities shall be addressed on a regional basis.

Implementation Measure: Participate within cooperative processes among land use jurisdictions to assure that County social and senior service facilities are sited in locations that best serve the region's population irrespective of jurisdictional boundaries, while considering local and County general plans and community standards.

Implementation Measure: Consider the following factors in siting social service facilities: convenience to potential clients, adequacy of transportation and parking at facilities, potential for co-siting services, acceptability to the affected community, safety of staff and clients and ease of referral to frequently used services.

Implementation Measure: Site senior service facilities in locations close to the service population, transportation, and other compatible uses.

Goal: Siting of new facilities and expansion of existing social or senior services facilities will be planned to most effectively serve the clients of each social and senior service activity as part of a comprehensive social and senior service delivery system.

Objective: Assure that social and senior service facilities are included in land use plans at the earliest possible stage to minimize conflicts with surrounding land uses.

Implementation Measure: Ensure the cooperation of other jurisdictions, including school districts, in joint siting of compatible programs and joint use of facilities to provide services to mutual clients.

Implementation Measure: Encourage service providers to jointly use facilities.

Implementation Measure: Promote public transit access from the Otay Ranch plan area to existing sources of governmental social and senior services offsite which serve Otay Ranch residents.

Implementation Measure: Where offsite sources of governmental social and senior services are too distant or inaccessible via public transit, provide a general location for the provision of such services within the Otay Ranch or other accessible areas.

Policy: The impact of new development on the need for County social and senior service facilities shall be mitigated.

Implementation Measure: Participate with programs which require new development to contribute its fair share of funding for County social and senior service facilities related to the needs of new development, if any.

III. Existing Conditions

The response to human care needs can be conceptualized as a wide spectrum of organizations and services provided by social service agencies, volunteer and service groups, churches, commercial businesses, government agencies and self-help groups.

Social service programs are primarily provided in the South County area by:

- Government services (e.g. Social Security, police department, rehabilitation department, children's services)

- Non-profit charitable organizations (e.g. YMCA, Episcopal Community Services, South Bay Community Services, Association for Retarded Citizens)
- Commercial businesses (e.g. psychiatrists, drug rehab.)

A. Government Services

Social service programs are mandated by State and Federal statutes and regulations and are largely funded from federal and state sources. The public sector funds many basic supportive services to needy segments of the population such as, the unemployed, the poor, homeless persons, the elderly, the mentally ill, and persons with disabilities. Federal funding patterns for financial aid and social service programs to many of these needy populations have seen dramatic changes in recent years which have resulted in substantial reductions in federal and state support for both social and senior services.

At the regional level, the County of San Diego has the primary mandate to provide social services to county residents. In addition, several public and quasi-public entities address social needs including the Private Industry Council (PIC), SANDAG, Regional Task Force on the Homeless, and other private-public sector partnerships. Through the provision of government services directly and via contract with non-profit organizations, the County Board of Supervisors distributes funds for services based on a fair-share formula for each district. This process distributes discretionary County social service resources based on demographically indicated needs. For FY 1989-90, the average per capita County expenditure for social services was \$20.91 (net of State and Federal funds and miscellaneous fees¹).

The Department of Social Services is the largest department in the County employing one out of every five County employees (3,316.75 staff years in FY 1989-90). Additionally, 160,165 volunteer hours are donated annually for a value of \$6.6 million. The Department serves one out of every eleven County residents or 218,567 people each month. The Department accounts for \$569 million in expenditures within the County's \$1.34 billion budget (1989-90). For FY 1989-90, the average per capita social services expenditure including offset revenues was \$227. The Department of Social Services occupies 614,849 square feet in 32 separate locations (San Diego County Department of Social Services, 2/90).

During the past decade, funding for health and human care services by the public sector has failed to keep pace with inflation and population growth. Net per capita expenditures in constant dollars are lower in almost all service areas. The County of San Diego continues to be pressured to use very limited discretionary funds for jails, courts, and other mandated services. This results in the redirection of current contracts from senior and human care services with community-based agencies to other mandated services. Further, the County of San Diego is falling behind in social services facility improvements. The future loss of discretionary funding by the County of San Diego results in increased pressure on the cities and private sector to fund more health and human services.

The federal and state governments transfer the costs of senior and human care services to county and municipal governments by mandating services and expenditure levels without proportionally increasing funding. During the past few years, the region's incorporated cities have come under increasing pressure to expand their support of health and human care services. Problems not apparent when the Gann limit and Proposition 13 were passed are placing additional strains on the state and local governments. Attachment A provides a detailed list of the various government social services serving the residents of South County.

The majority of county, state, and federal regional offices for the South County area are located in and around the Chula Vista downtown.

B. Non-Profit Charitable Organizations

Traditionally, social service programs arise from state mandates and legislation and needs expressed by residents. Residents join with government and other neighborhood institutions (e.g. churches, schools) to address a community problem. In this way, County government provides its services county-wide, while non-profit and city services in each community create a specific mix of services over time in response to their needs. It is important to note community issues and service needs are constantly changing -- only a few years ago, San Diego had no latch-key programs, telephone reassurance services or AIDS agencies.

Social and senior services offered by private, non-profit organizations augment the services available from government. Services are provided through contracts

**Otay Ranch Facility Implementation Plan
Social and Senior Services Facilities**

with government agencies, grants, fees-for-services and charitable contributions. There are 37 non-profit health and social service organizations located in Chula Vista, Castle Park and Otay (SRA 21). An additional 17 non-profit health and social service organizations are located in Imperial Beach, San Ysidro and South San Diego (SRA 22). Attachment B lists the current organizations located in the South County.

Social service programs required to meet the needs of society are so numerous, varied and complex the County of San Diego has had difficulty formulating overall standards for needed facilities and programs. Facility needs vary by program, and are directly related to the population served and the type of service provided. The County is seeking new approaches to service through pilot programs such as New Beginnings.

The Service/Target Population Index Categories developed by the County of San Diego, City of San Diego, and United Way provides a comprehensive listing of the types of health and human services available to the residents of San Diego County (See Attachment C Service/Target Population Index Categories). These services are provided by numerous government departments at all levels, non-profit organizations and commercial businesses.

Some services are more likely to be provided on a county-wide or district (South County) basis rather than at a local or neighborhood level. These county-wide services include:

advocacy/ombudsman	alcohol detoxification
blood, tissue & organ banks	burial assistance
child care reimbursements	transportation, special
consumer assistance	diversion, adult
health inspection	budget/debt counseling
ex-offender/re-entry	genetic counseling
foster care	health & patient education

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Social and Senior Services Facilities

health, case management	health, support groups
health, research	hospice
homemaker services	mental health education
housing, purchase assistance and rehabilitation	infertility information & counseling
information & referral	physical disabilities
out-of-home care, placement	shelter, emergency
public information	sterilization information &
social development, handicapped	legal services

The services listed above need a large population base in order to operate in a cost effective and efficient manner. County-wide services also require client access to complementary services and may co-locate in areas such as downtown San Diego.

The number of people served by all social and senior service organizations and departments is not known. Services vary based on client needs and available funding. However, County Department of Social Service level of service data indicate the following services and payments:

- Income maintenance payments to 134,506 per month - an average of \$500 to each needy family
- \$1.1 million in food cash assistance to 8,600 families. \$3.7 million in cash assistance for food to 37,700 families monthly
- 62,500 child abuse and neglect referrals
- 6,217 children in out-of-home care
- licenses 1,832 foster families and 5,420 day care homes annually
- homemaker services to 12,000 frail or disabled adults

- protective services to 1,520 per month and conservator for 1,700 per month
- places 5,374 customers in jobs
- Community Action Partnership serves 92,000 low to middle income residents annually through 75 community contracts.
- 9,416 youth and adults with 37,149 nights of shelter
- 31,716 customers with food
- 51,774 with prevention and counseling services.

The following list reflects the general categories of services which are available from non-profit social service organizations in South County:

- senior services
- emergency/disaster preparation/safety
- disabled services
- family planning
- Hispanic services
- services for the poor
- continuation high school
- health care
- child care
- social recreation for youth
- youth services
- mental health
- farm-worker services

The Social Service Plan for the City of Chula Vista (1987) ranks alcohol and drug services, child care and latchkey programs, and domestic violence and abuse as the services most needed in Chula Vista. The Plan projects growing needs for:

- low-income and shared housing
- employment and training
- AIDS education and prevention

- transportation
- multiple service centers
- youth recreation

The Social Service Plan also identifies a growing concern regarding the aging of the population, vulnerability of the young, housing costs, and service difficulties due to language, culture and transportation barriers.

The needs of seniors differ from those of younger persons, and are best addressed by programs designed specifically for their special needs. Examples of problems more common for seniors include limited mobility, reduced income, and health problems. Currently, the Area Agency on Aging funds the Salvation Army Nutrition Center in Chula Vista. The provision of programs for seniors is mandated and largely funded by the Federal and State governments through the County's Area Agency on Aging.

The City of Chula Vista has increased Community Service Block Grant (CDBG) funding for alcohol recovery, domestic violence and latchkey programs in response to the Social Service Plan. The City's Human Services Council is exploring alternatives to increase financial and voluntary resources to address these concerns.

C. Senior Services Provided by the County

The Area Agency on Aging is a department of the County of San Diego. It was established as an Area Agency in 1974 in response to national legislation, the Older Americans Act. There are over 700 such agencies in the nation. The Agency is the regional focal point for services to older adults. It administers Federal, State and County funds. Total expenditures for the fiscal year ending June 30, 1993 were over \$11 million.

The agency's mission is "...to secure and maintain maximum independence and dignity in a home environment for older individuals, to remove individual and social barriers to economic and personal independence, and to provide a continuum of care for the vulnerable elderly." (Title III, Older Americans Act, 1965).

The following services are provided annually by the Area Agency on Aging (AAA):

- I&R receives an average of 4,000 inquiries per month and refers over 3,000 callers per year for services.
- AAA Case Management Programs serve over 2,000 frail clients to prevent/postpone institutionalization.
- Ombudsman volunteers average 3,000 visits to 91 Skilled Nursing and 365 Residential Facilities (totally 18,000 beds) to investigate complaints and advocate for residents.
- Legal Services provides over 19,000 hours of free or low-cost legal assistance to 7,000 seniors.
- Nutrition Programs provide over one million meals to seniors and provide nearly 400,000 home-delivered meals to seniors.

Agency responsibilities include advocacy, long-range planning, assessment of current services, and the development of innovative ways to continue quality services within fiscal constraints. The agency is committed to effective and efficient services to older adults. As a planning agency, it is developing long-range capacity to improve the quality of life for the elderly through funding of services and development of additional community resources.

D. Senior Services Provided by the City of Chula Vista

The City of Chula Vista has completed a new two story, 15,000+ sq. ft. Norman Park Senior Center in downtown Chula Vista. The Chula Vista Parks and Recreation Department coordinates the programs and activities at the new center. Approximately 11,000 seniors/month participate in recreational, social, educational and fundraising activities. The first floor of the new center contains a 10,000 sq. ft. multi-purpose room. The second floor of the new center has conference rooms and houses senior service agencies, such as legal, medical, housing information and referral services. Norman Park Senior Center staff also coordinate a volunteer telephone reassurance program.

E. Social and Demographic Trends

Demographic and social trends also provide general indications for South County social service needs. (FutureScan: United Way of San Diego, 1988).

Present Trend:

- 24% of county households are headed by single parents.
- 3% of the county's population has a developmental disability including mental retardation.
- 50% of San Diego County households are renters.
- 15% to 17% of county residents are functionally illiterate.
- Approximately 40% of children and 25% of seniors do not have health insurance.
- San Diego County continues to have one of the highest incidence of AIDS in the nation.
- 12% of adults ages 18 years and older are considered problem drinkers.
- 7.9% of county residents are using over-the-counter, prescription, and/or illegal drugs to the extent that it is causing problems in their lives.
- Child abuse, domestic violence, and abuse of the elderly continues to rise.
- The San Diego region continues to be one of the nations least affordable housing markets.

Future Projections:

- County projections suggest the region's total population will reach 2,784,200 persons by the year 2000 – an increase of 19.6%. Population growth will be heaviest in North County and east Chula Vista. 75% of the region's future population growth will be attributable to net migration.
- The number of pre-school and school-age children will increase by 46.3%.

- Persons per household is expected to decline to 2.5.
- The number of persons 65 years of age and older will constitute 11.9% of the region's population. Almost half of these seniors will be over age 75.
- Ethnic groups will comprise 40% of the region's population. Hispanics will account for approximately 22.9% of the county population.

The growing percentage of children and seniors citizens indicates South County services need to be expanded to address these complex social needs. The growing Hispanic and Pan-Asian populations means services will need to be sensitive to cultural differences, overcome language barriers, address the client's multiple problems simultaneously, and be more accessible via location or through access to public transportation.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents².

The development and full build-out of Otay Ranch will require additional facilities for community social services be located in the South County. Based upon the area analysis and general operating practices of the County of San Diego and City of Chula Vista, a demand level for social services was developed. This demand level was determined by identifying service levels required for a population of 79,000 and the desire to ensure facilities are available to site social services needed by the future residents of Otay Ranch and a portion of the social services needed regionally. The availability of sites will be facilitated through the Community Purpose Facility zone.

The method used for determining needs is a comparison with other South County community services and their relationship with other social services provided in the county of San Diego. The demand generated at the build-out of Otay Ranch will require the construction of commercial office, commercial storefront, and 6-bed neighborhood residential facilities (based on available facilities elsewhere - see Health & Medical Facilities for demand of 6-bed neighborhood residential facilities).

V. Facilities

The future community of Otay Ranch will require the location of non-profit organizations and government service offices to meet the needs of residents. It is recommended the majority of government services are kept in centralized locations for the convenience of South County residents. Villages within Otay Ranch should have "receptor" and/or kiosk information areas for public and non-profit social services, as well as services appropriately provided at the neighborhood level. Most of the services provided to South County residents are located in leased office space. Expansion of services at current locations may not be possible.

Based on existing services provided in the South County, it appears numerous new and existing non-profit organizations seeking sites within Otay Ranch, with varying staff sizes and facility needs, will serve the residents of Otay Ranch. The facilities for these organizations will be comprised of primarily commercially leased office or storefront space which may range from 500 sq. ft. offices to 35,000 sq. ft. facilities. (Based on existing space utilization by South County social and senior service providers.) In addition, field office space in government facilities, such as recreation centers and cultural centers; for organizations such as the Boys and Girls Club, South Bay Community Services and County social service staff as appropriate; and schools are recommended to house social service outreach staff. In addition, a health worker referral office with information, referral and translation services may be desirable.

The Community and Regional Purpose Facilities plan required compliance with the Chula Vista Community Purpose Facility Ordinance. The Ordinance requires new master planned communities to zone 1.39 acres for community purpose facilities per 1,000 new residents. General locations will be provided for Otay Ranch social service organizations, charities, private adult care and mental care facilities within Otay Ranch when off-site sources of service are too distant or inaccessible via public transit. Non-profit organizations customarily pay for property (rent or purchase) as do commercial businesses. This includes tenancy arrangements of local governments with non-profit organizations for use and operation of public facilities. Non-profit organizations offer local governments a cost effective way of operating certain public facilities (e.g. clubs, recreation facilities, public meeting spaces) since they provide operation and supervision for the facility in exchange for low cost rent.

Although some services must be provided from a centralized office on a county-wide basis, many are more effectively administered at the local level. The Community of Otay Ranch will have a large commercial office area in the Eastern Urban Center, as well as numerous village cores. Non-profit organizations could locate in business areas such as the village cores or Eastern Urban Center, close to public transportation and other businesses. Exceptions are 6-bed residential facilities such as group homes for developmentally disabled, shelters for homeless teenagers, and non-ambulatory senior housing which should be integrated into the residential fabric of the community. Residences should be located within the village core to facilitate easy access to local services and commercial businesses. Preservation of land for siting residential facilities should be assured through the use of a Community Purpose Facility zone as discussed in the Community and Regional Purpose Facility section of this report.

Provision of adequate Community Purpose Facility (CPF) acreage and involvement of South County social service organizations and government offices in Otay Ranch planning assists in the planning and siting of services in a timely manner through the ongoing assessment of community needs.

The CPF zone would permit quasi-public land uses with a minimum of regulatory constraints for schools, child care, social services, health services, government services and churches. Use of Community Purpose Facility zones will avoid forcing public, religious and charitable institutions from competing in the marketplace with "for-profit" enterprises. The zone also minimizes potential conflicts with adjacent uses during the permitting process.

It is further recommended planning for social services for the residents of Otay Ranch should incorporate the following considerations:

- The elderly have special needs for affordable housing, transportation and health care. The number of persons 65 years of age and older requiring long-term care will increase significantly, As family size also decreases, there will be less family-based support and increased reliance on outside services for the elderly.
- The public sector and community-based organizations will need to deliver services in more culturally sensitive ways. Close collaboration with ethnic and cultural groups will be essential.

- As the number of pre-school and school-age children increase, more child care, before and after school programs and other youth services will be needed.

Tremendous population growth in San Diego County also suggests a need for more service delivery facilities. This is underscored by the rising cost of transportation and increasing congestion. Services may need to be decentralized particularly for areas in the North County and South County to ensure accessibility. A cooperative effort is needed involving the County, cities, and the private sector to coordinate the delivery of senior and human care services (multi-service centers or adjacent facilities), throughout the South County and for the future residents of Otay Ranch.

Social service organizations are changing methods in response to the needs of clients. Representatives of South County social service providers emphasize the following trends in the provision of social services which can be incorporated into social service planning for the Otay Ranch.

- neighborhood schools will be a central location for services to students, parents, and other area residents. Schools may prove to be ideal locations for child care and counseling services.
- there will be a greater focus on prevention, early intervention and community education services.
- culturally specific services will serve the diverse needs of a wider array of ethnic and cultural groups.
- agency programs will be decentralized, locating staff members in schools, police stations, recreation centers and libraries.
- decentralization will create more personalized, smaller scale services.
- complimentary services may be grouped together in "multi-service" centers.
- service locations will take into account the availability of accessible public transportation.
- increased use of case management techniques to provide specific client services from different agencies.

- social and health services will be coordinated and integrated with health, recreation, literacy, education, community development, and housing services.
- agencies will use more sophisticated methods to disseminate information to community residents and clients.
- all successful community-based organizations will diversify their funding base and decrease dependency on single funding sources.
- more resources (up to 25%) will be spent on fund-raising, organizational planning and development, and administration. Additional resources will be allocated to securing public policy changes.
- agencies will form new coalitions with universities, and art, health, housing, and economic development organizations.
- agencies will find ways to share overhead expenses. Many groups are jointly buying or leasing office space and sharing products and services ranging from accountants and receptionists to copiers and postage meters.
- there will be increased use of volunteers.

These changes in government and non-profit social services and use of the Community Purpose Facility zone will result in improved services and a greater emphasis on the prevention of social problems for the residents of Otay Ranch.

VI. Processing Requirements

A. SPA Requirements

- Specific space requirements identified for social and senior services facilities, including designation of Community Purpose Facility and Regional Purpose Facility space.
- Conduct facility planning with input from the County Department of Social Services, City of Chula Vista and Area Agency on Aging.
- Encourage the cooperation of all affected jurisdictions in joint siting of programs and facilities.

- Circulate SPA plans to the Commission on Aging, County Department of Social Services, Area Agency on Aging, Human Services Council and Chula Vista 21 for review and to determine needs for facility siting (if any).
- Consider co-location of services in or at school sites.

B. Tentative Map Requirements

- Land zoned Community Purpose Facility or Regional Purpose Facility, consistent with the SPA determination.

C. Final Map Requirements

- Implement conditions.

D. Building Permit Requirements

- Pay impact fee, if established for the appropriate benefit area.

¹ Hughes & Heiss 1991, Table 18.

² These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Attachment A

Government Social Services Serving South San Diego County

Federal and State of California

Rehabilitation Department - State of California
Social Security Administration
Employment Development Department

County of San Diego

Welfare District Office

Aid to Families with Dependent Children
Food Stamps/Cash
General Relief
Adult Special Circumstances
Employment Services
Refugee Assistance
Administration and External Support

Department of Social Services

Adoption Services
Adult Protective Services
Child Abuse Placement and Protective Services
Child Support Collection Revenue and Recovery
Community Action Partnership
Community Development Block Grant Program
Day Care Licensing
Family Care Licensing
Family Service Centers
Foster Care Licensing
GAIN

Housing and Community Development
In-Home Support Services
PIC/RETC
Refugee Employment Services

Area Agency on Aging

Adult Day Care
Case Management
Nutrition
Information Assistance
Ombudsman Program
Legal Services

South County residents are serviced by the South Bay District Office, Childrens' Service Bureau, and the South Bay Service Center.

City of Chula Vista

Parks & Recreation Department
Library (literacy program)
Police Department (juvenile diversion program)

Other

Imperial Beach Senior Center - City of Imperial Beach
San Ysidro Recreation Center - City of San Diego
Refugee Employment Services

Attachment B

Health and social services offered by private, non-profit organizations augment the services available from government. Services are provided through contracts with government, grants and charitable contributions. There are 37 non-profit health and social service organizations located in Chula Vista, Castle Park and Otay (SRA 21). An additional 17 non-profit health and social service organizations are located in Imperial Beach, San Ysidro and South San Diego (SRA 22). The following non profit health and social service organizations serve the South County:

Chula Vista, Castle Park, Otay (SRA 21)

Adult Protective Services - Adult Day Health Care
American Red Cross
Association for Retarded Citizens - Starlight Center
Birthright of San Diego County
Centro de Asuntos Migratorios - CAM
Chicano Federation - Otay Senior Center
Chula Vista Senior Citizen Club
Chula Vista Senior Service Center
Chula Vista Welfare Council
Del Rey Center
Episcopal Community Services
 South Bay Neighborhood Recovery Center
 South Bay Drug Abuse Services
 Otay Community Clinic
 South Bay Headstart Administration
Girls & Boys Club of Chula Vista
Handytrans
Jobs for Progress
Lutheran Social Services - Project Hand
Mental Health Systems - Kinesis South
MAAC
 Alcohol Division
 Service Center - Otay
New Alternatives Home Based Services
Recovery, Inc.
St. Charles South Bay Nutrition Project
Salvation Army - C.V. Corps. and Community Center

San Diego Pregnancy Center
Scripps Memorial Hospital - Chula Vista
Senior Adult Services - Meals-on-Wheels
Senior Citizens Legal Services
Sharp Chula Vista Medical Center
South Bay Community Services
South Bay Guidance Center
South Bay Pioneers
South County Council on Aging
Southwood Psychiatric Centers
 Acute Psychiatric Hospital
 Outpatient Clinic
 Residential Treatment Center/Southwood House
Vista Hill Hospital
West Health Care Home Health Services
Woodlawn Park Community Center
YMCA of San Diego County
 Family Stress Center
 South Bay Family Branch

Imperial Beach, San Ysidro, South San Diego (SRA 22)

American Youth Hostels - Imperial Beach
Boys & Girls Club of Imperial Beach
C Street Medical Group
Casa de Servicios
Imperial Beach Community Clinic
Isis Center
Martin Luther King Campesino Centro
MAAC - San Ysidro Service Center
Morningstar Place
Sunburst Place
St. Charles South Bay & San Ysidro Nutrition Projects
San Diego Interfaith Housing Foundation
San Diego Job Corps. Center
San Ysidro Health Center
Trabajadores de la Raza
YMCA of San Diego County - Border View Branch
YMCA/San Ysidro Teen Center

Attachment C
Service/Target Population Index Categories

Abuse Prevention & Education
Abuse, Adults/Elders
Abuse, Spouse
Abuse/Battered Persons
Adoption
Adult-Day Care
Advocacy/Ombudsman
AIDS
Alcohol Abusers
Alcohol Counseling
Alcohol Detoxification
Alcohol Drinking Driver Services
Alcohol In-patient Treatment
Alcohol Intervention & Education
Alcohol Recovery Services
Alcohol Support Groups
Alert Reassurance
Birth Control
Blood, Tissue & Organ Banks
Burial Assistance
Camping
Case Management
Child Care Reimbursements
Child Day Care
Child/Family Counseling
Children (0 to 12)
Clothing
Clubs & Special Interest Groups
Community Development
Community Education
Community Planning & Research
Conservatorship/Guardianship
Consumer Assistance
Crime Prevention
Cultural Transition
Delinquency Prevention
Dental Care

Developmentally Disabled
Disaster Relief
Diversion, Adult
Drug Abuse Counseling
Drug Abuse Detoxification
Drug Abuse In-patient/Residential Treatment
Drug Abuse Intervention & Education
Drug Abuse Support Groups
Drug Abusers
Education, Alternative
Education, Continuing and Adult
Education Guidance Counseling
Education, High School Equivalency/G.E.D.
Education, Preschool
Education,, Scholarships & Student Loans
Education, Special
Education, Testing & Assessment
Education, Tutoring
Education, Vocational & Technical
Employment, Counseling & Information
Employment, Development
Employment, Equipment & Referral
Employment, Sheltered
Employment, Subsidized
Employment, Testing & Assessment
Employment Training & Work Experience
English as a Second Language
Environmental Health Inspection
Environmental Protection
Ethnicity - American Indians
Ethnicity - Asians
Ethnicity - Blacks
Ethnicity - Ethnic Minorities (General)
Ethnicity - Hispanic Origins
Ethnicity - Pacific Islanders
Ethnicity - Southeast Asians
Ex-Offender/Re-Entry
Eye Care
Family Planning
Females

Financial Aid, Emergency
Financial Aid, Medical Emergency
Financial Aid, Rent
Financial Benefits, Disability
Financial Benefits, Medical
Financial Benefits, Medical
Financial Benefits, Social Security
Financial Benefits, Unemployment
Financial Benefits, Veterans
Financial Management, Budget/Debt Counseling
Food, Emergency
Food, Meals, Congregate
Food, Meals, Home-Delivered
Food Stamps
Food Supplements
Foster Care
Friendly Visiting Companionship
Furniture/Appliances
Genetic Counseling
Health, Alternative Care
Health, Communicable Disease Control & Screening
Health, Day Care
Health, General Outpatient
Health, Home Nursing
Health, In-patient, Acute, or Sub-Acute Care
Health, In-patient, Skilled, or Intermediate
Health, Maternal & Child
Health, Medical & Child
Health, Patient Education
Health, Promotion & Education
Health, Research
Health, Screening
Health, Support Groups
Hearing Care
Hearing Impaired
Homeless
Homemaker, Domestic Services
Hospice
Housing, Purchase Assistance
Housing, Rehabilitation

Housing, Information & Relocation
Housing, Repair/Weatherization
Housing, Shared
Housing, Subsidized
Immigrants
Immigration/Naturalization
Individual-Group Counseling-Adult
Infertility Information & Counseling
Information & Referral, General
Information & Referral, Specific Services
Information & Referral, Specific Target Group
Jail, Inmate Support
Jail/Detention
Juvenile Delinquents
Legal Advice & Representation
Legal/Mediation
Library Services
Males
Mental Health, Assessment
Mental Health, Case Management
Mental Health, Crisis Intervention
Mental Health, Day Treatment Therapy
Mental Health, Day Treatment Socialization
Mental Health, Day Treatment Vocational
Mental Health, In-patient/Residential
Mental Health, Promotion & Education
Mental Health, Psychiatric Hospital
Mental Health, Support Groups
Mental Health, Transitional Residential
Mentally/Emotionally Disabled
Military
Out-of-Home Care, Board and Care
Out-of-Home Care, Group Home
Out-of-Home Care, Independent Living
Out-of-Home Care, Placement
Out-of-Home Care, Residential Facility
Parenting
Physical Fitness
Physically Disabled
Pregnancy Termination & Counseling

Pregnancy Testing & Counseling
Probation/Parole
Public Information
Rehabilitation, Occupational Therapy
Rehabilitation, Physical Therapy
Rehabilitation, Speech Therapy
Respite Care, In-Home
Respite Care, Out-of-Home
School Dropouts
Senior Adults (60 & over)
Shelter, Emergency, Refuge
Shelter, Emergency, Temporary
Shopping/Escort
Single Parents
Social Development, Adult
Social Development, Handicapped
Special Events
Spiritual Counseling
Sports & Games
Sterilization Information & Assistance
Stress Reduction
Tax Preparation Assistance
Technical Assistance
Thrift Stores
Transients
Translation/Interpretation
Transportation, Emergency
Transportation, Public
Transportation, Special
Travelers Assistance
Unemployed and/or Underemployed
Victim Services
Visually Impaired
Volunteer Services
Youth Adolescents (13-17)
Youth Counseling
Youth Services, Facility Centered
Youth Services, Group

Animal Control Facilities

I. Threshold

Participate in programs to provide animal control facilities sufficient to provide adequate square feet of shelter space per Otay Ranch dwelling unit.

II. Goals, Objectives, Policies and Standards

Goal: Ensure that the Community of Otay Ranch is served by an effective animal control program that provides for the care and protection of the domestic animal population, safety of people from domestic animals, and the education of the public regarding responsible animal ownership.

Objective: Participate in programs to provide animal control facilities sufficient to provide adequate shelter space per Otay Ranch dwelling unit.

Policy: Fund animal control facilities, either by contributions to a comprehensive impact fee program or other provisions to be determined at the SPA level.

III. Existing Conditions

The County of San Diego and the City of Chula Vista provide animal control services for the Otay Ranch. The Humane Society provides animal shelter and related services for cities such as Oceanside and Escondido and provides adoption, humane disposal and investigation for all County residents.

A. County of San Diego

The County of San Diego Department of Animal Control provides animal health and regulatory services to over 3/4 of the residents of San Diego County. The department is the 6th largest animal control department in the nation. In FY 1989, the Department of Animal Control received 41,050 animals and issued 93,000 dog licenses.

Services are provided in all unincorporated portions of the county and in 9 cities within San Diego County by contract. Staff is on premises 24 hours a day, seven days a week and private veterinarians provide emergency services on a contract basis. The Department provides the following services and programs:

- emergency care for injured animals
- surveillance for rabies, rabies vaccination clinics and quarantine of biting animals
- investigation/prosecution of anti-cruelty laws
- control of vicious or stray animals
- licensing of dogs
- adoption and lost pet services
- spay/neuter referral and information
- public education and information
- inspection and licensing of private kennels
- humane disposal of injured and unwanted animals
- shelter domestic animals, reptiles, and livestock
- senior adoption and foster care programs
- animal rescue - provides animal rescue to all cities in case of disasters

The South Shelter, located in Bonita, currently provides animal control services to the Otay Ranch Area. This shelter was constructed in 1976, and in 1989-90 impounded 16,581 animals (average daily attendance of 250 animals), making it the busiest shelter in the county. This facility, as well as all San Diego County animal shelters, is operating above capacity. The facility is approximately 19,147 sq. ft. located on a 18.24 acre parcel and provides 157 dog kennels, an adoption cattery, two cat holding rooms, four livestock corrals, and veterinary and administrative offices. The South Shelter's property has a CALTRANS easement on 7.24 acres. CALTRANS released the easement in 1990, based on plans for SR-125. In early 1991, CALTRANS renewed its interest in securing the easement again for a SR-125 interchange. If CALTRANS exercises its option to use this parcel, the South Shelter will relocate to property provided by CALTRANS in trade for the existing animal shelter site. This facility serves over 600,000 residents.

B. City of Chula Vista

The City of Chula Vista currently has one animal shelter facility located on Otay Valley Road which provides animal shelter services for domestic animals,

reptiles, fish, and small livestock. Chula Vista also provides trapping, shelter and relocation services for non-vicious native animals found within the city. Chula Vista also provides pound contract services for National City and Imperial Beach. The shelter is similar to Humane Society and County Animal Control facilities, operating pet adoption services and humane disposal of unwanted animals. The facility does not have a full-time veterinarian on staff.

The Chula Vista facility is located on a one acre site, with 75 outside and uncovered kennels which house 2 to 3 animals per kennel. The shelter is open to the public Monday through Saturday, and is staffed from 6 a.m. to 6 p.m., 7 days a week. The existing facility is at capacity and within the next few years will have to be rebuilt or relocated due to road construction and realignment of Otay Valley Road. A temporary facility will be used until capital fund money is available for new construction. The City of Chula Vista is in the process of siting a new animal control facility in the Eastern Territories. Once a site is determined, it may adequately serve Otay Ranch.

The animal control division is operated through the Chula Vista Police Department and currently employs three animal control officers, two kennel attendants, one supervisor, and a 1/3 time clerk. They have four animal control vehicles. All animals are received and impounded at the Chula Vista Animal Shelter.

C. The Humane Society

The Humane Society conducts humane investigations and accepts owned animals for adoption and humane disposal. Humane societies in North San Diego County provide animal control services through contracts with area cities.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

The proportion of regional population growth, corresponding to the build-out of Otay Ranch, will require the construction of additional or expanded animal control facilities or a contractual agreement for animal control facilities and services.

The size of the facility necessary to serve the Otay Ranch at build-out is calculated based on the County Public Facility Element objective of .13 sq. ft. per dwelling unit. The development of 27,000 new homes as called for in the Otay Ranch Plan would create the need for a 3,510 sq. ft. facility (.13*27,000 = 3,510). These facilities should include additional new caging, veterinary and administrative offices to provide adequate services for the new residents of Otay Ranch.

V. Facilities

It is recommended animal control facilities serving Otay Ranch be located off-site through expansion of County of San Diego and City of Chula Vista facilities, as appropriate, based on jurisdiction.

VI. Processing Requirements

A. SPA Requirements

- Establish a method of funding for the expansion of animal control facilities needed to serve Otay Ranch.

B. Building Permit

- Payment of impact fee (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

Civic Facilities

I. Threshold

Make provisions for general governmental facilities, including regional and municipal administrative facilities and operation center(s).

II. Goals, Objectives, Policies and Standards

Goal: Assure the efficient and timely provision of public services and facilities to developable areas of the Otay Ranch Project Area concurrent with need while preserving environmental resources of the site and ensuring compatibility with the existing character of surrounding communities. Integrate different types of public facilities where such facilities are compatible and complementary.

Policy: Locate regional and local government administrative offices and service facilities within the Eastern Urban Center.

Policy: Locate a central post office within Otay Ranch as well as smaller public or private postal facilities in village centers.

III. Existing Conditions

There are no public facilities currently located in the Otay Ranch Project Area. The areas surrounding Otay Ranch are currently served by the City of Chula Vista, the City of San Diego, the County of San Diego, State of California and Federal government offices.

Local Administration: The City of Chula Vista is currently served by the Chula Vista Civic Center. The present facility totals 119,780 square feet with 333 parking spaces. The City estimates the service demands and staffing levels exceed the facility's capacity by 7,210 sq. ft. and 114 parking spaces. The Chula Vista Civic Center Master Plan anticipates expanding the facility by nearly 46,000 square feet to meet projected 2010 population forecasts of 207,000. The County of San Diego's central administrative offices are located in the County Administrative Center in downtown San Diego.

Corporation Yards: According to the *Chula Vista Growth Management Program Report*, the City of Chula Vista Corporation Yard is currently operating beyond capacity and is in need of relocation. The *Development Impact Fees for Chula Vista*

Report proposed the relocation of the facility east of I-805. New development within Chula Vista pays Development Impact Fees to off-set the acquisition and improvement costs.

The division headquarters for the County's field operations is located in the Spring Valley area. That facility is supplemented by two small adjacent operation centers. Similar "road stations" located in Alpine, Campo and Descanso also serve the South County.

Other Governmental Facilities: The County of San Diego, State of California, and Federal governments provide some services through branch office/site locations in leased space.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Civic Administration Facility: Future residents of Otay Ranch will require civic services. The services and facilities necessary to serve the future residents of Otay Ranch will largely depend on future jurisdictional alignments.

The Chula Vista Civic Center Master Plan² is used as a model to project the space and facility requirements for Otay Ranch.

The City of Chula Vista Master Civic Center Plan calculates the following factors for planning the expansion of the Civic Center.

**Chula Vista Civic Center
Master Plan Projections**

	1988	1995	2000	2010
Sq. ft./per 1,000 pop.	494	448	445	398
Parking Spaces per 1,000 pop.	2.42	2.24	2.19	2.0

From this data, it is assumed that 420 sq. ft. of civic administrative space is needed to serve 1,000 Otay Ranch residents, and 2.0 civic parking spaces will be needed per 1,000 Otay Ranch residents. Based on these assumption, it is projected that 33,488 sq. ft. of civic administrative space will be needed to serve Otay Ranch at build-out (see calculations below). This facility would require 159 parking spaces and can be accommodated on a 1.5 acre site.

**Otay Ranch Civic Administration
Space Requirements**

Otay Ranch population at build-out	79,000
Administrative Space (420 * 79,000/1000)	33,180 Sq. Ft.
Parking (2. * 79,000/1000)	158 Spaces
Land	1.5 acres

Operations Yard: Future residents of Otay Ranch will require operational services usually provided by a local municipality through a public works operations yard. The Chula Vista Corporation Yard Analysis³ is used as a model for determining the components and size of a public works yard necessary to serve Otay Ranch at build-out. The Chula Vista Corporation Yard Study concluded that a new facility is necessary to serve Chula Vista through the year 2010, at which time the forecasted population of Chula Vista is 207,000 residents.

To determine the size and components of an Otay Ranch public works yard, the planned Chula Vista facility was adjusted proportionately.

The Chula Vista Corporation Yard is planned to be located on 15 acres, 8.7 acres for buildings and storage with 6.3 acres held in reserve.

It is projected a 109,049 sq. ft. operations yard on 6.3 acres is necessary to accommodate outdoor storage for the Public Works, Parks, Garage/Shops, Transit and General Stores Departments. Therefore, should Otay Ranch be served by the Chula Vista Corporation Yard, additional land would not be needed. On the other hand, should Otay Ranch not be served by the Chula Vista Corporation Yard, a 3.3 acre site would have to be identified within Otay Ranch. If Otay Ranch largely remained in the unincorporated area, the yard would be operated by the County of San Diego.

V. Facilities

The demand for civic facilities and sites depends upon the ultimate jurisdictional alignment regarding the governance of Otay Ranch.

Civic Administrative Facility: If a sizable portion of the Otay Ranch is annexed to an adjacent jurisdiction, it is likely the demand for civic facilities would be marginally lower since economies-of-scale would enable the project area to be partially served by existing facilities. If the bulk of Otay Ranch remains unincorporated, there would still be a demand for increased County administrative facilities, but at an even smaller size because the County would provide a decreased level of "civic-type" services; economies-of-scale; and administrative facilities would likely be provided in central facilities located in downtown Chula Vista or within the County of San Diego.

Operational Facilities: The likely demand for land to site operational facilities would also be affected by the ultimate jurisdictional alignment. Should sizable portions of Otay Ranch annex to Chula Vista, expanded operational facilities could be constructed on the Chula Vista Corporation Yard site to serve the residents of Otay Ranch. However, if Otay Ranch does not annex, and remains unincorporated, a separate 3.3 acre operations site would have to be provided. Regardless of the location (Chula Vista Corporation Yard or a separate site),

approximately 57,500 sq. ft. of buildings/storage and 158 parking spaces would be needed to serve Otay Ranch.

VI. Processing Requirements

A. SPA Requirements

- Specific space and facility sites identified for civic uses necessary to serve Otay Ranch in conjunction with the government structure determination and/or the EUC SPA plan.
- Alternative financing methods refined.

B. Tentative Map Requirements

- Conditioned to zone, dedicate or reserve site, as appropriate.
- Funding identified.

C. Final Map Requirements

- Site dedicated, zoned or reserved, as appropriate.
- Funding assured.

D. Building Permit

- Payment of impact fee (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

² A Master Plan For The Chula Vista Civic Center, February 16, 1990, Danielson Design Group, Michael Feerer and Associates, The Spurlock Office.

³ Development Impact Fees for Chula Vista, City of Chula Vista, December 12, 1991.

Correctional Facilities

I. Threshold

Make provisions for criminal justice facilities, including jails and courts, adequate to serve the Otay Ranch Project Area.

II. Goals, Objectives, Policies and Standards

Goal: Prevent injury, loss of life and damage to property resulting from crime occurrence through the provision of criminal justice facilities.

Objective: Make provisions for justice facilities, including jails, courts, and police facilities adequate to serve the Otay Ranch Project Area.

Policy: Otay Ranch shall participate in a development impact fee program for correctional facilities to meet the facility needs generated by Otay Ranch residents. if established.

III. Existing Conditions

Within the South County area, there are five detention facilities operated by both the County of San Diego and the State of California. All five facilities provide detention and correctional services for the residents of San Diego County. Attachment B, Existing Facilities, illustrates the locations presently surrounding Otay Ranch.

A. County of San Diego

South Bay Detention Facility

The South Bay Detention Facility located on 3rd and "H" Streets in Chula Vista, is a County detention facility. This facility normally operates at a 370 average daily prisoner population. The South Bay Detention Facility is responsible for the detainment of in-custody pre-trial individuals, as well as housing and care of sentenced inmates.

George F. Bailey Detention Facility

George F. Bailey Detention Facility accommodates 2,150 inmates in medium and maximum security facilities. The Bailey Detention Facility is on a 524 acre parcel, and at full build-out, will provide jail cells for 6,000 medium and maximum security prisoners. Further construction on this site is dependent upon additional revenue. This facility is located northeast of the third facility, Richard J. Donovan Correctional Prison. The City of San Diego operates a pre-arraignment detention facility for misdemeanor offenders at Bailey.

Central Detention Facility

The Central Detention Facility is located at 222 West C Street in downtown San Diego. This facility has an average daily prisoner population of 750. The Central Detention Facility is responsible for booking services for all South County law enforcement agencies. In addition, both sentenced and un-sentenced detainees are held at the Central Detention Facility. The County is planning a replacement facility in downtown San Diego across the street from the existing facility. The new facility should be ready for use in 1997.

Women's Las Colinas Detention Facility

The Las Colinas Detention Facility is located at 9000 Cottonwood Avenue in Santee. Female prisoners from south, central and east counties are booked at this facility. Sentenced and un-sentenced female prisoners are housed in this 478 bed facility. The average daily population at Las Colinas is over 500 inmates.

Probation Department Facilities

Probation Department facilities are primarily office space for probation officers and support staff. These offices are located at:

232 W. Ash St., San Diego

250 E. Main St., El Cajon

1727 Sweetwater Rd., Suite 200, National City

3988 Ohio St., San Diego

2801 - 2901 Meadowlark Dr., San Diego

**Otay Ranch Facility Implementation Plan
Correctional Facilities**

The County Probation Department expects to provide the following services:

Adults:

Investigations	32,445
Supervision	20,273
Institutions	3,500

Juveniles:

Referrals Received	11,970
Juvenile Hall Admissions	5,297
Supervision	5,000

In 1993-94, the Probation Department is staffed as follows:

Adult:

Field Services	391.5
Institutions	166.5
Total Adult	558.0

Juvenile:

Field Services	169
Institutions	333
Total Juvenile	502

Other Probation (Admin., Support) 71

Total Probation Employees 1,131

B. City of Chula Vista

The City of Chula Vista books and processes their prisoners at the central police station in downtown Chula Vista and has three holding cells on site. Detainees are transferred within 3-4 hours to the Central Detention Facility in downtown San Diego for processing and holding. The City of Chula Vista will not need

additional holding facilities to accommodate the Otay Ranch population (City of Chula Vista).

C. City of San Diego

The City of San Diego books misdemeanants at their downtown headquarters at 1400 Broadway. Inmates are then transferred to East Mesa for 48-hour holding and video arraignment.

D. State of California

Richard J. Donovan Correctional Prison

The Donovan Correctional Prison is a state facility with over 4,000 inmates and is located on a 700 acre parcel with a development potential of 8,000 inmates at full build-out. The state prison provides medium and maximum security for prisoners serving sentences longer than one year. The State is planning a 4,000 inmate expansion to facilitate a waste recycling project.

E. Federal

Metropolitan Correctional Center (MCC)

The Metropolitan Correctional Center is a federal facility located at 808 Union Street in downtown San Diego. This facility has 1,100 beds and averages 1,050 inmates. MCC is primarily (80%) utilized as a pre-trial holding facility, with approximately 20% of the population serving sentences for federal offenses.

United States Border Patrol

The U.S. Board Patrol Brown Field Station is located at 7060 Boeing, San Diego, CA 92173. This station has 4 holding cells and office space. 137 sworn Border Patrol Officers are assigned to the Brown Field Station. During fiscal year 1992, 98,759 illegal aliens were apprehended and processed for deportation through the Brown Field Station.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

A. Correctional Facilities

The proportion of regional population growth, corresponding to the build-out of Otay Ranch, generates a demand for correctional facilities based upon an analysis of projected arrests (see Law Enforcement Facility section of this Plan) and San Diego County holding and length of stay patterns to determine correctional facility system impact. Booking and length of stay per booking factors were determined through reference to the most recent Jail Needs Assessment and interviews with the County Sheriff's Department and County Chief Administrator's Office². Key values include:

- Average stay per adult booking which includes both pre-trial and commitment components - 13.5 days.
- Average length of stay per juvenile booking - 27.5 days.
- An adult booking rate (pre-trial and commitment) of 35 per 1,000 population.
- A juvenile booking rate of 2.1 per 1,000 population.

The demand generation methodology consists of the projected population of Otay Ranch at build-out of 78,555 multiplied by the booking rate and average length of stay, divided by 365 days equals the estimated average daily correctional facility population. This calculation indicates the need for correctional facilities for an average of 102 adults and 12.5 juveniles. It is recommended the projection of correctional facility demand consider the age of the community and socio-economic characteristics of its residents, crime prevention and deterrent measures, early releases, and potential increases in misdemeanor bookings to more accurately calculate the need for services.

B. Adult and Juvenile Probation

The proportion of regional population growth, corresponding to the build-out of Otay Ranch, generates a demand for probation facilities based upon an analysis

of adult and juvenile probation referrals, by comparing 1989 referral data to county-wide arrests. This resulted in the following factors:

.064 adult referrals per adult arrest

.51 juvenile referrals per juvenile arrest

Using these factors multiplied by adult and juvenile arrest rates³ times population equals the estimated adult and juvenile probation caseload at the build-out of the Otay Ranch. This results in the following projected caseload:

Adults: 253 cases

Juveniles: 254 cases

Based on 1989-90 data and methodology⁴, the population associated with the build-out of the Otay Ranch would require additional probation staff and office space. However, it is understood that the methodology for calculating demand will likely change at the time the Eastern Urban Center is built. The appropriate methodology will be applied at that time.

V. Facilities

Correctional Facilities: Demand generation indicates that 102 adult beds and 13 juvenile beds will be required at build-out to serve Otay Ranch residents. It is recommended that off-site facilities be developed or expanded to respond to this demand due to the close proximity of Otay Mesa and Central Chula Vista facilities to Otay Ranch. It is noted, however, that the East Mesa Detention Facility can satisfy Otay Ranch demand if new revenues are identified. Otherwise, this facility cannot be relied upon to satisfy demand.

Probation Facilities: New probation facilities may be warranted to serve the residents of Otay Ranch. Existing facilities may be expanded or it may be appropriate to site a probation office in Otay Ranch to house the probation employees needed to serve the Otay Ranch. If location of a probation office is warranted for Otay Ranch, it should be located within the Eastern Urban Center. Approximately 7,820 sq. ft. of office space will be required at build-out.

VII. Processing Requirements

A. SPA Requirements

- Determine the size, location, timing and need for correctional facilities as part of the EUC SPA plan processing.

B. Tentative Map

- Land zoned consistent with the SPA designation.

C. Final Map

- Implement conditions.

D. Building Permit Requirements

- Pay impact fee if established for the appropriate benefit area.

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

² Hughes & Heiss, 1991.

³ Based on the assumption of 50 adult arrests/1,000 population and 6.3 juvenile arrests/1,000 population.

⁴ In order to determine facility needs for probation staff, it is necessary to calculate the number of staff needed to service the demand. Fiscal Year 1989-90 adult and juvenile staffing patterns resulted in the following:

21.0 Adult referrals per adult probation officer

40.1 Juvenile referrals per juvenile probation officer

Projected caseload was divided by referrals per employee factors to estimate staffing demand at build-out, which equals:

12 Adult probation officer

6.1 Juvenile probation officer

Otay Ranch Facility Implementation Plan
Correctional Facilities

Support personnel is calculated by identifying the ratio between adult probation employees and support personnel as follows:

.53 support personnel per adult probation officer

.45 support personnel per juvenile probation officer

Therefore,

12 adult probation officers require 6.4 support personnel

6.1 juvenile probation officers require 2.7 support personnel

Or, the population associated with the build-out of Otay Ranch will require:

18.4 total adult probation employees

8.8 total juvenile probation employees

27.2 Total probation employees

Each staff person occupies approximately 250 net sq. ft. of office space. approximately 6,800 sq. ft. of office space plus an additional 1,020 sq. ft. of common space(.15 sq. ft. x 6,950) totaling approximately 7,820 sq. ft.

Fire Protection and Emergency Medical Facilities

I. Threshold

City of Chula Vista: Provide sufficient fire and emergency services facilities to respond to calls within the Otay Ranch urban communities within a 7 minute response time in 85% of the cases; within a 10 minute travel time in the Otay Ranch estate communities with lots averaging 1 or more acres (and attendant neighborhood serving commercial); and within a 12 minute travel time in the Otay Ranch rural communities with 4 acre lots or larger.

County of San Diego: Provide sufficient fire and emergency services facilities to respond to calls within: Otay Ranch single family communities with residential lots of less than two acres, or more intensive uses such as multi-family residential, including industrial development and all commercial development except neighborhood commercial, in a 5 minute travel time; Otay Ranch single family residential lots from two acres to four acres, including neighborhood commercial development, in a 10 minute travel time; and Otay Ranch large lot single family residential and agricultural areas with lot sizes greater than four acres in a 20 minute travel time.

II. Goals, Objectives, Policies and Standards

Goal: Provide protection to the Otay Ranch Project Area and surrounding communities from the loss of life and property due to fires and medical emergencies.

Objective: City of Chula Vista: Provide sufficient fire and emergency services facilities to respond to calls within the Otay Ranch urban communities: within a 7 minute response time in 85% of the cases.

Objective: County of San Diego: Provide sufficient fire and emergency services facilities to respond to calls within: Otay Ranch single family communities with residential lots of less than 2 acres, or more intensive uses such as multi-family residential, including industrial development and all commercial development, except neighborhood commercial, in a 5 minute travel time; Otay Ranch single family residential lots from 2 to 4 acres, including neighborhood commercial development, in a 10 minute travel time; and Otay Ranch large lot single family residential and agricultural areas with lot sizes greater than 4 acres in a 20 minute travel time.

Otay Ranch Facility Implementation Plan Fire Protection and Emergency Medical Facilities

Policy: Otay Ranch SPA plans shall include Emergency Disaster Plans to become operative during periods of major emergency.

Policy: Otay Ranch shall participate in cooperative agreements with urban and rural emergency services providers.

Policy: Incorporate the Otay Ranch Project Area into existing regional disaster preparedness programs.

Policy: Otay Ranch shall site fire and emergency services facilities consistent with the following factors: a) Ability to meet travel/response time policies; b) Proximity to a pool of volunteer firefighters for service within the unincorporated areas, when appropriate; c) Ability of the site to support the appropriate facility to serve current and future development in the intended service area; d) Distances from other fire stations, including those operated by neighboring districts; e) Safe access to roadways in emergency responses; f) Special needs for fire suppression, and emergency services, including needs created by recreation areas and industrial land uses; g) avoid close proximity to fault traces; and h) Ability to meet any adopted local community facility level standard, if appropriate.

Policy: Consideration shall be given to shared law enforcement and fire services facilities such as public safety "storefronts" within village centers, training rooms and equipment storage.

Policy: Otay Ranch shall evaluate the provision of fire suppression sprinkler systems for residential development within the project area as part of SPA plans.

Policy: Fire protection and emergency services facilities shall be available or will be available concurrent with need.

Policy: In areas lacking local public structural fire protection and within the sphere of influence of a fire protection agency, approval of Otay Ranch discretionary applications shall be conditioned on the annexation to that agency.

Policy: Otay Ranch shall cooperate in the development of a strategy to address emergency medical service facilities and responsibilities in areas lacking a local provider of these services.

Policy: Otay Ranch shall work with affected fire protection agencies to cooperatively develop guidelines for appropriate water provision requirements necessary for fire protection in groundwater dependent areas.

Policy: Otay Ranch shall participate in fire mitigation fee or development impact fee programs to enable fire protection agencies to meet the facility and equipment needs generated by Otay Ranch.

III. Existing Conditions

Fire Protection

The County of San Diego Rural Fire Protection District, Chula Vista Fire Department, San Diego Fire Department, and the California Division of Forestry, provide fire protection services for the Otay Ranch. The City of Chula Vista and the City of San Diego Fire Departments provide dispatch and administrative services per an "Automatic Aid" agreement with communities which touch city boundaries to allow the closest fire protection units to respond and to minimize response times. The services provided by each jurisdiction are more fully described below.

A. County of San Diego

The Rural Fire Protection District (RFPD) provides fire protection services for approximately 700 square miles in the southern and eastern unincorporated portions of San Diego County. There are 15 permanent stations within the RFPD and 150 volunteer firefighters serve in this fire district. Two stations provide fire protection services to all of the unincorporated areas of Otay Ranch; the Jamul station, located on Highway 94 within Otay Ranch; and the Dulzura station located to the east of the project's San Ysidro Mountains Parcel.

Jamul Station: The Jamul station is staffed with a paid three-person company, 10 hours/day, five days/week, with volunteers providing coverage during nights and weekends. The Jamul station has a new pumper/combo type 1 structure engine, a type 3 brush truck, water tender and a heavy rescue vehicle. This station serves a population of 17,000+ for first in response to structure fires and emergency calls. Approximately 60-70% of all calls in the RFPD are rescue

Otay Ranch Facility Implementation Plan Fire Protection and Emergency Medical Facilities

related, and all paid personnel and volunteers are Emergency Medical Technicians and EMTD trained. The RFPD maintains a 6-8 minute travel time.

The Jamul station was upgraded to a fully staffed station (staffed 24 hours/day, 7 days/week) in 1991. The RFPD 15 year plan includes maintaining the Jamul station at its current location.

Dulzura Station: The Dulzura station is a volunteer station. There are no plans to transition this station to a fully-paid or partially-paid staffed station in the foreseeable future, given current call volume estimated to be 135 calls for service in 1990 – (annualized based on 11 months' data).

B. City of Chula Vista

The City of Chula Vista's present fire suppression network consists of six Chula Vista based stations. The current fire suppression network equipment includes 6 in-service engine companies, 2 reserve engine companies, 1 ladder truck and 1 rescue unit. In FY 1992-93, the Chula Vista Fire Department (CVFD) employed 92 total personnel, including fire fighters and administrative staff. CVFD presently has 4 stations, #2, #3, #4 and #6, which serve the Otay Ranch/Eastern Territories area. All four stations are equipped with 1 pumper truck and 9 fire fighters per station, working on 24-hour shifts of 3 personnel per 24-hour day.

The City of Chula Vista has an automatic aid agreement with one station located in the Bonita-Sunnyside Fire Protection District.

The CVFD is equipped and staffed with fire and emergency units to respond to calls throughout the City of Chula Vista within 7 minutes in 85% of the emergency calls answered.

The Fire Station Master Plan for the City of Chula Vista proposes an eight fire station network at build-out. The Master Plan proposes to relocate stations #3, east of I-805, and station #4 to the Salt Creek Ranch development. Current development in the area will dramatically increase Station 3's call volume. Two new stations are proposed, one in Rancho del Rey, and one in the eastern territories of Otay Ranch. This eight station network is based on the Chula Vista General Plan and does not consider Otay Ranch. The Fire Station Master Plan may be updated based upon more detailed Otay Ranch data and plans.

C. City of San Diego

The City of San Diego has one station (Station #6) that provides fire protection to the Otay Ranch. This station is first in response to the Otay Valley Road Redevelopment Area and is located at Palm Avenue, west of I-805. The San Diego Fire Department (SDFD) maintains a maximum of 6 minute response time for residential areas, and 4 minute response time for targeted areas defined as high life loss. These include major public assembly, commercial and high-rise areas.

The City of San Diego's new facility (Station #43) located at the eastern end of Brown Field will open in FY 94-95. The new facility at Brown Field will house 1 engine company, 1 truck company, and 1 crash rig and company, in an 8,000 sq. ft., 4 bay facility with 12 personnel, 24-hrs/day shifts. San Diego plans to relocate Station #6 to the east side of I-805, depending upon demand created by new development.

D. Other Jurisdictions

1. California Department of Forestry

The California Department of Forestry provides wildland fire protection for Otay Ranch, adjacent federal lands and in areas which are not incorporated. They do not provide fire protection for structures. The closest fire stations to the Otay Ranch are Dulzura, Potrero, Lions Valley and Monta Vista. All of the stations are fully staffed during peak fire season (May 1 - December 1). The Monta Vista and Potrero Stations have 2 pumper engines/station, and the Lions Valley and Dulzura Stations each have 1 engine. One engine company consists of 3 people.

2. Olympic Training Center

The Olympic Training Center (OTC) will have a temporary fire facility on site. This facility will be volunteer only and will have 1 engine company on site. The OTC will have emergency medical services 24 hours a day, provided by physicians and trainers. However, they will not participate in a mutual aid agreement due to liability and insurance constraints.

Emergency Medical Services (EMS):

In the western portion of Otay Ranch and the surrounding communities, emergency medical services are provided by Hartson Medical Services. Hartson provides Emergency Medical Technicians (EMTs) and paramedic services for the City of Chula Vista, City of San Diego, National City, and Imperial Beach under private contract with each municipality. The unincorporated areas of the county are not covered by contracted paramedic services, and are typically served by emergency medical technicians and the Rural Fire Protection District for first response services. Hartson Medical Services responds to 93% of the emergency calls within 10 minutes (contract requirement 90% within 10 minutes).

There are five Hartson stations which provide paramedic and EMT services in areas from National City to the San Ysidro border crossing. The two stations located in Chula Vista provide primary response services to all areas in Chula Vista exclusively. The National City station provides secondary response to Chula Vista and surrounding areas through a mutual aid agreement. The two southern stations provide emergency medical technician and paramedic services to the San Ysidro, Imperial Beach and Nestor areas. All 5 stations work in two member teams/unit/24 hour shifts. The CVFD also provides advanced life support (ALS) services. Almost 70% of calls for service are medical in nature; one in six is for ALS. Firefighters are defibrillator trained.

Paramedics: Paramedics are equipped with life support systems and respond to emergency calls within a 10 minute maximum response time. Paramedics are centrally based and respond to emergency calls similar to fire vehicles.

Emergency Medical Technicians: Emergency medical technicians respond to non-emergency calls and provide transportation/ambulance service to and from medical facilities. EMTs are routed through the two Chula Vista stations and the San Ysidro station, and are always mobile. They respond to non-emergency calls while in operation and are always moving from one call to another, similar to police units.

All emergency medical services are routed through the base station facility located at Scripps Memorial Hospital - Chula Vista. All calls are monitored and routed equitably throughout the emergency room facilities in the South County Region. Since no major trauma facility is located in the South County Region, all

trauma injuries are transported to facilities in San Diego or the UCSD Medical Center in Hillcrest.

Funding for emergency medical services varies throughout the county and can be fully subsidized through property taxes, user fees or a combination of the two. Hartson is not subsidized by the City of Chula Vista or property taxes at this time. Fees for services provided are collected by Hartson. An average paramedic call costs approximately \$500.00.

All fire protection and emergency medical service agencies within their respective service areas provide adequate coverage of the Otay Ranch. Present emergency services providers have sufficient facilities to serve the existing uses in Otay Ranch.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

A. Fire Service Demand

The number and location of fire stations is primarily determined by response time. Total response time represents the time it takes from receipt of a call for service until a fire company arrives on-scene. Total response time consists of three principal components: dispatch time, turnout time, and travel time². Travel time is the major component of response time and the most variable. The following assumptions can be used to calculate demand for fire stations:

- provide response times of 7.0 minutes for first-in units to 85% of dwelling units in urban areas
- provide "travel time" response of 10.0 minutes for dwelling units in rural areas
- urban response time consists of 1.3 minutes dispatch and "turnout" and 5.7 minutes travel time to 85% of dwelling units in urban areas
- dwelling unit development outside the 10.0 minute standard initiates construction and staffing of a new station to bring an urban

Otay Ranch Facility Implementation Plan Fire Protection and Emergency Medical Facilities

area within the target 7.0 minute response time standard and a rural area within the 10.0 minute “travel time” standard.

The Otay Ranch will require both urban and rural levels of service, depending on land use designations. It is anticipated that a total of 4 new stations may be required to serve the entire Otay Ranch. However, Fire Master Plans are anticipated to require further analysis and updating at the SPA level.

B. Emergency Services Demand

The demand generated for emergency services can be determined by analyzing either response time or utilizing a per capita methodology.

Application of the fire protection service response time methodology (described above) to emergency services would result in the need for 4 emergency services facilities within the Otay Ranch.

Application of an alternative per capita methodology to emergency services would result in 1.5 emergency services facilities to serve the Otay Ranch, as follows: The generated demand for emergency services is based on a standard of 1 emergency request/8,750 population/day and utilizes a standard of 1 paramedic unit for every 6 emergency requests (based on Chula Vista's emergency services actual experience). This equates to 1.5 emergency stations and units at full build-out to serve the 79,634 residents of Otay Ranch. Each paramedic unit consists of two member teams working 24 hour shifts.

V. Facilities

Fire Protection Services

As depicted in Attachment A, 4 new fire stations are necessary to serve the Otay Ranch at build-out, in conformance with the recommended response time objectives.

Emergency Facilities

It is likely that 4 public or private emergency service dispatch centers will be necessary to serve Otay Ranch. Co-location of emergency service dispatch centers may be considered.

VI. Processing Requirements

A. SPA Requirements

- Specific facility site refined.
- Equipment needs identified.
- Alternative financing methods identified by the appropriate fire agency and implementation method assured.
- Fire suppression (sprinkler plan) analysis prepared and jurisdictional requirements applied.
- Demonstrate ability to provide facilities in conjunction with sewer, water and road facilities.
- Timing of construction consistent with GDP/SRP project requirements.
- Determine that response time standards have been met.
- Identify radio communication problems associated with the Otay Ranch (if any).
- Develop project specific guidelines.
- Consider HAZMAT service location, if appropriate and warranted.
- Review of fuel modification plans by fire department(s).
- Assure appropriate water pressures and supply for fire control.
- Include design guidelines that implement the concept of "municipal fire insurance," if appropriate.

B. Tentative Map Requirements

- Conditioned to dedicate or reserve site, as appropriate.
- Funding identified.

3. Final Map Requirements

- Site dedicated or reserved, as appropriate.
- Funding assured.

D. Building Permit

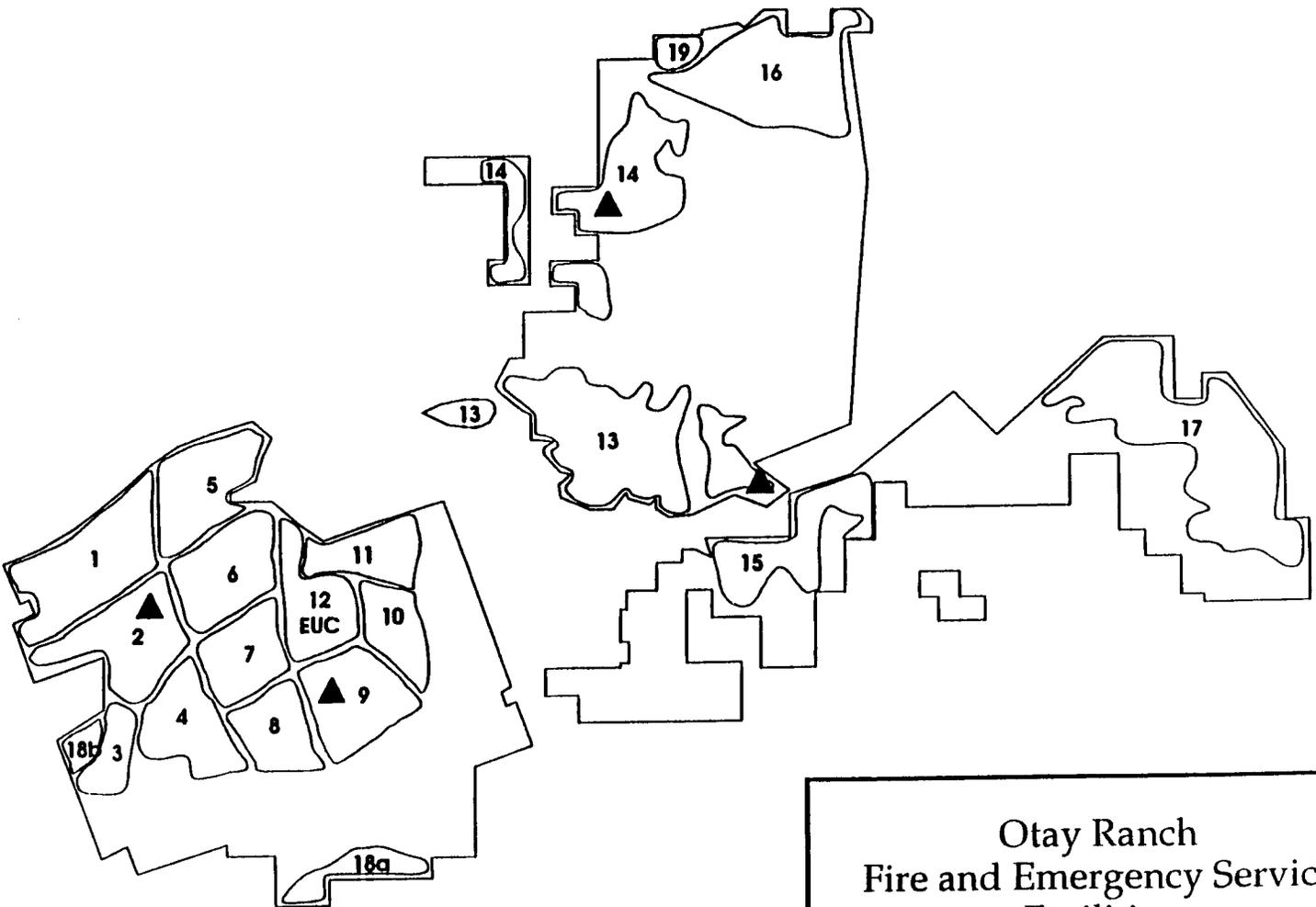
- Payment of impact fee (if established).
- Apply sprinkler plan requirements.

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

² Does not include access time from fire scene to location of fire in multi-level structures. Consideration of additional time factors should be included for Eastern Urban Center at SPA.

Otay Ranch Facility Implementation Plan
Fire Protection and Emergency Medical Facilities

Attachment A



Otay Ranch
Fire and Emergency Service
Facilities

Justice Facilities

I. Threshold

Cooperate with the County to identify an equitable funding method for the development of justice facilities based on the needs of Otay Ranch and their benefit to Otay Ranch residents.

II. Goals, Objectives, Policies and Standards

Goal: Prevent injury, loss of life and damage to property by having adequate justice facilities to serve Otay Ranch residents.

Objective: Cooperate with the County to identify an equitable funding method for the development of justice facilities based on the needs of Otay Ranch and their benefit to Otay Ranch residents.

Objective: Justice facilities serving Otay Ranch residents will be sited in appropriate locations and in a timely manner, irrespective of jurisdictional boundaries.

Policy: Cooperate with the County and adjacent jurisdictions to develop plans for the siting of justice facilities to serve the needs of the entire region.

Implementation Measure: Participate with a cooperative process among land use jurisdictions to ensure justice facilities are sited in locations which best serve the region's population and take into consideration jurisdictional general plans and community standards.

Objective: Enhance public safety by utilizing land use and site design techniques to prevent criminal activity.

III. Existing Conditions

The County of San Diego provides judicial services for the area west of Otay Lakes, at the South Bay Regional Center located on Third and "H" Streets in Chula Vista. The El Cajon Judicial District provides judicial services for the areas east of Otay Lakes.

The ultimate jurisdiction for the project will have an impact on the final alignment of judicial district boundaries. Since the majority of Otay Ranch is within the South Bay Judicial District, the following analysis is based on existing conditions, criteria, and recommendations for service by that district exclusively.

The South Bay Regional Center provides Municipal and Superior Court services for the South Bay Judicial District.

Municipal Court: The Municipal Court has the authority to adjudicate criminal misdemeanors or infractions, traffic cases, small claims and civil suits less than \$25,000 in value. Additional responsibilities of the court include arraignment and preliminary hearings for felony offenses. There are 8 courtrooms which provide specialty hearings, general civil and criminal cases. The Municipal Court Service is also proposing to expand to 12 courts in the year 2000, and will increase to 17 courts in the year 2010.

Superior Court: The South Bay Superior Court Branch has judicial authority over the disposition of felony charges and civil suits in excess of \$25,000 in value. Superior Court is responsible for juvenile offenses, mental health hearings, probate, guardian disputes, family law, divorces, child custody and support services. There are four Superior Court courtrooms in the South Bay Regional Center. By the year 2000, 10 departments are proposed, increasing to 15 courts by the year 2010.

All juvenile court actions are heard at the Kearny Mesa Facility (Meadowlark). Satellite traffic/small claims and civil court facilities for other judicial districts are located in San Marcos, Escondido and in the Kearny Mesa area.

Along with the Municipal and Superior Court services, office space for the District Attorney, Public Defender, Law Library, Revenue and Recovery, Probation and the Marshall, are located at or near the South Bay Regional Center. All these court related and support services are also proposing to expand within the South Bay Regional Center by the year 2000. As indicated in the draft South Bay Regional Center Master Plan Update; February 9, 1990, all of these additional court facility expansions can be accommodated at the South Bay Regional Center location. The site has the ability to expand both north and south of the existing facility and is capable of accommodating a structured parking facility on the western edge of the site.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

Based upon an analysis of existing judicial weighted caseload factors² and position standards utilized for South Bay Region Municipal Court and San Diego County Superior Court, the population associated with the build-out of Otay Ranch would generate a demand for 2.6 superior court judicial positions and 2.2 municipal judicial positions .

Support Personnel Demand		
Staff	Ratio	Otay Ranch Demand
Courtroom Clerks	1.35 Judicial Positions/Court Room	3.5
Court Reporters	1.0 Superior, 0.5 Municipal Judicial Positions/Court Room	2.6 Superior Court 4.4 Municipal Court
Judicial Secretary	0.25 Judicial Positions/Court Room	19.2
Bailiff	1.0 Judicial Positions/Court Room	4.8
District Attorney	4.5 Judicial Positions/Court Room	1
Court Clerk Staff	4.0 Judicial Positions/Court Room	1.2
Total		36.7

Each court is estimated to be 4,500 gross sq. ft., therefore, a total of 9,900 gross sq. ft. of municipal court space and 12,150 gross sq. ft. of superior court space is needed to meet the projected demand. An additional 9,250 gross sq. ft. of office space is needed to house the 37 district attorney and court clerk staff.

Public defenders will also require additional facilities and services to meet the demand generated by Otay Ranch residents. The methodology to calculate public defender demand is derived from the number of arrests projected in the Law Enforcement Implementation Plan³ at the rate of .62 cases/arrest. Private contract defenders cases are calculated at .028 cases/arrest. Calculations resulted in a demand of 2,498 public defender cases and 113 private contract cases annually at the build-out of Otay Ranch. This will require approximately 5 public defenders and 3 support staff. These 8 additional staff will occupy 2,500 sq. ft.

The total justice facility demand for the Otay Ranch at build-out is:

Justice Facility Demand

Municipal courts	9,900 g. sq. ft.
Superior courts	12,150 g. sq. ft.
District Attorney's/Clerk office	9,250 g. sq. ft.
<u>Public defenders</u>	<u>2,500 g. sq. ft.</u>
Total	24,890 g. sq. ft.

V. Facilities

The South Bay Regional Center has adequate expansion capacity to serve the projected needs of the South County region for major municipal and superior court activities. The court administrator has determined a centralized location for the majority of court functions is preferable from an economic and efficiency perspective. Satellite courtroom facilities may be effective in accommodating traffic and small claims hearings, while improving the overall operational efficiency. Additionally, the satellite facilities might provide more convenient access and reduced travel times for local residents.

Utilizing the demand generated analysis, estimated population, and the existing and proposed court facilities surrounding the Otay Ranch Project Area, it is recommended additional courts and offices may be located adjacent to or proximate to the existing South Bay Regional Center and a traffic court and small claims court facility should be considered for siting in the Otay Ranch Eastern Urban Center.

The South Bay Regional Center 1990 Master Plan Update does not include Otay Ranch. It is recommended subsequent master plan updates consider the impact of the Otay Ranch population on court demand. Expansion plans for the South Bay Regional Center indicate the site cannot fully accommodate the additional demand for services. Some municipal facilities should, therefore, be located in the Eastern Urban Center. Courts and offices should be located adjacent to other municipal and civic functions. Such a central location on the site provides access for all Otay Ranch residents to conduct court activities. Commercial or retail services are compatible land uses and could share parking areas. The court should also have access to public transportation and major or minor arterials for easy accessibility. Courtroom facilities should include waiting rooms, space for bailiff/clerk, court reporter, secretaries and court clerks, copy, storage and records room, client conference rooms, chambers, public restrooms and parking.

VI. Processing Requirements

A. SPA Requirements

- Determine the size, location and timing of justice facilities needed to serve Otay Ranch, as part of the SPA plan for the Eastern Urban Center.
- Develop design guidelines to deter criminal activity.

B. Tentative Map Requirements

- Land zoned for Regional Purpose Facilities, consistent with the SPA determination.
- Apply design guidelines.

C. Final Map

- Implement conditions.

D. Building Permit Requirements

- Pay impact fee, if established for the appropriate benefit area.

- 1 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
- 2 Based on 1989-90 data and methodology, the population associated with the build-out of Otay Ranch would require additional judicial staff, courtrooms and office space. However, it is understood that the methodology for calculating demand will likely change at the time the Eastern Urban Center is built. The appropriate methodology will be applied at that time.

Case Weights

Superior Court	Case
<u>Case Category</u>	<u>Weights</u>
Criminal	236
Juvenile Delinquency	67
Juvenile Dependency	67
Probate and Guardianship	36
Family Law	52
Personal Injury, Death, & Property Damage	67
Eminent Domain	171
Other Civil Complaints	112
Other Civil Petitions	12
Appeals	51
Mental Health	35
Habeas Corpus	24
Municipal Court	Case
<u>Case Category</u>	<u>Weights</u>
Felony	55
Non-traffic	
Misdemeanors	
Group A	19
Group B	7
Infractions	2
Traffic	

**Otay Ranch Facility Implementation Plan
Justice Facilities**

Misdemeanors	
Group C	34
Group D	3
Infractions	.7
Illegal Parking	.04
Civil	
Small Claims	7
Other Civil	10

Case weight units equate to the amount of judicial time, in minutes, needed for each type of case. Unit case weights are multiplied by type of cases handled by the courts and divided by total jurisdictional population. This results in the following judicial case weight factors:

Municipal Court:	2.1827265 weighted case units/resident
Superior Court:	3.6332549 weighted case units/resident

The judicial position standards indicate the number of weighted case units assigned to each judicial position. The judicial position standards are:

Municipal Court:	78,000 weighted case units/judicial position
Superior Court:	108,658 weighted case units/judicial position

Demand may be calculated by multiplying the population by judicial weight factors and dividing by judicial position standards (Huges & Heiss, 1991). This calculation results in an estimate of 287,027 superior court weighted caseload units and 172,435 municipal court weighted caseload units annually, at the build-out of Otay Ranch. Servicing this demand will require 2.6 superior court judicial positions and 2.2 municipal judicial positions. The calculation of judicial positions also takes into consideration support personnel positions in order to calculate space allocation.

3 Assumes 50 adult arrests/1,000 residents and 6.3 juvenile arrests/1,000 residents.

Law Enforcement Facilities

I. Threshold

Urban Service: Properly equipped and staffed law enforcement units shall respond to 84 percent of "Priority One" emergency calls within 7 minutes and maintain an average response time for all "Priority One" emergency calls of 4.5 minutes or less.

Urban Service: Properly equipped and staffed law enforcement units shall respond to 62 percent of "Priority Two Urgent" calls within 7 minutes and maintain an average response time to all "Priority Two" calls of 7 minutes or less.

Rural Service: Properly equipped and staffed law enforcement units shall maintain an average response time for "Priority One" calls of 12 minutes, and 24 minutes for low priority calls.

II. Goals, Objectives and Policies

Goal: Protection of life and property and prevention of crime occurrence.

Objective: Make provisions for criminal justice facilities, including jails, courts, and police facilities adequate to serve the Otay Ranch Project Area.

Objective: Enhance conditions for public safety by utilizing land use and site design techniques to deter criminal activity and promote law enforcement.

Objective: Site law enforcement facilities in appropriate locations in order to serve the population.

Policy: Otay Ranch shall finance its full and fair share of the facility needs that it generates.

Policy: Urban Service: Provide properly equipped and staffed law enforcement units shall respond to 84 percent of "Priority One" emergency calls within 7 minutes and maintain an average response time of all "Priority One" emergency calls of 4.5 minutes or less.

Policy: Urban Service: Provide properly equipped and staffed law enforcement units shall respond to 62 percent of "Priority Two Urgent" calls within 7 minutes

and maintain an average response time to all "Priority Two" calls of 7 minutes or less.

Policy: Rural Service: Provide facilities for properly equipped and staffed law enforcement units to maintain an average response time for "Priority One" calls of 12 minutes, and 24 minutes for low priority calls.

III. Existing Conditions

The County of San Diego, City of Chula Vista and City of San Diego provide law enforcement services for the Otay Ranch and surrounding communities. Attachment A, Existing and Proposed Law Enforcement Facilities, illustrates the location of current law enforcement facilities serving the project area. The services provided by each jurisdiction are more fully described below.

A. County of San Diego

The San Diego County Sheriff's Office (SDSO) provides public safety and protection services for all unincorporated areas of the County and for approximately 22,900 acres in Otay Ranch. The SDSO provides services to the Jamul Mountain and San Ysidro Mountains areas from the Imperial Beach Station, the Campo Substation and the Dulzura Office.

The Imperial Beach Sheriff's Station has 46 employees: 37 sworn and 9 non-sworn. There are 15 units on patrol each day, including general patrol, traffic enforcement and community service officers. One Juvenile Intervention Detective and one Crime Prevention Officer (D.A.R.E.) are assigned to the Imperial Beach Station. The Imperial Beach Station provides 1.01 officers/1,000 population.

The Imperial Beach Station's unincorporated areas are served by an average of 5.24, 8 1/2 hour, patrol shifts per day, every day of the year. Imperial Beach city units provide back-up in the unincorporated area as needed. Average response time of Imperial Beach units working the unincorporated area of Bonita (an area similar to the planned project) for high priority (Priority One and Priority Two Urgent) calls is 7.9 minutes; non-priority calls is 15.7 minutes. In urbanized areas of unincorporated San Diego, the current standard for response time to a priority

call is 8 minutes or less. These are calls involving life-threatening situations or felonies in progress. For all other calls, 16 minutes or less is required¹.

The Campo substation is staffed by one sergeant and three deputies. These deputies and the resident deputy in Dulzura are available to respond to calls for service while on patrol on an on-call status. The average response time to priority calls for the Sheriff's Campo Substation is 18.4 minutes; non-priority calls is 29.1 minutes.

Dispatch services for all of the unincorporated areas of Otay Ranch are from the Clairemont Mesa Communications Center. The existing Communication Center can accommodate any expansion which may result from Otay Ranch development.

B. City of Chula Vista

The Chula Vista Police Department (CVPD) provides police protection in the City of Chula Vista, including the areas along the northern and western edge of Otay Ranch. They have one 50,180 sq. ft. main police station, located at the civic center at 276 Fourth Avenue. There are 239 personnel, 156 sworn, and 83 non-sworn. CVPD has approximately 40 vehicles on patrol, including motorcycles. Currently, officers work three shifts, 10 hours/day, 4 days/week. A standard response provides one officer/patrol car. Chula Vista provides 1.0 officers/1,000 population.

The City of Chula Vista utilizes a staffing factor (annual review) to determine the level of service and number of officers needed to provide adequate service to the area. The staffing factor takes into account the total number of calls for service, time to respond and report, and proactive time of officers as related to the patrol division. The City of Chula Vista maintains an emergency response standard to provide properly equipped and staffed law enforcement units to respond to 84 percent of Priority One emergency calls within 7 minutes and maintains an average response time of 4.5 minutes or less for these calls.

There are two crime prevention officers that manage the Neighborhood Watch programs within Chula Vista.

C. City of San Diego

The City of San Diego Police Department (SDPD) provides public safety and protection services for approximately 350 acres in the extreme southern portion of Otay Ranch. The City of San Diego has one substation which is located two miles north of the San Ysidro Border crossing. Although a small portion of Otay Ranch is within the city's patrol area, no patrol service is provided north of Brown Field. The substation has 98 personnel, both sworn and non-sworn. There are approximately 50 vehicles, and patrols work in 3 ten hour shifts, four days/week. Officers patrol one officer/patrol car on the day and midnight shifts. There are two officers/patrol car on the second shift, when it is the busiest and most dangerous.

The City of San Diego is proposing a new substation centrally located in its service area. Plans include a 17,000 sq. ft. building with office and locker space for 190-200 personnel. A 5,000 - 6,000 sq. ft. service garage and 200 parking spaces are also proposed. The City prefers a 3-4 acre site with good frontage, two points of access and a corner lot. No exact location has been identified at this time. San Diego provides 1.68 officers/1,000 population, but the city's goal is 2.00 officers/1,000 population.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents².

In order to identify facility and equipment demand, a field patrol staffing model was used to determine staffing requirements for urban and rural areas³. The analysis of demand for law enforcement personnel, and subsequently for facilities and equipment, are based on the following assumptions:

- 268 calls for service (CFS) per 1,000 population annually
- 50 adult and 6.3 juvenile arrests per 1,000 population
- 25% of CFS handled by community service officers and other non-patrol personnel
- 33 minutes of handling time per CFS in urban areas and 47 minutes in rural areas

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- 1.4 units are dispatched per CFS
- 1.3 hours per arrest/booking
- .81 reports per CFS averaging 23.4 minutes per report (urban), and .33 reports per CFS averaging 20 minutes per report (rural)
- patrol workload is balanced between calls for service and proactive patrol time
- patrol personnel work 1,483 net hours per year
- response time thresholds are:
 - urban: 84% of Priority 1 CFS in 7 minutes
62% of Priority 2 CFS in 7 minutes
 - rural: 12 minute average for high priority CFS
24 minute average for low priority CFS
- patrol personnel work 4, 10 hour shifts
- 1.74 support staff per 1.67 patrol personnel

This analysis indicates a total of 109 (.00138 x 79,000) law enforcement personnel will be needed to serve the urban and rural portions of Otay Ranch. When evaluating staffing needs and established thresholds, consideration should also be given to the provision of educational and community oriented police services. Each employee will require an allocation of approximately 204.5 sq. ft., based on the existing Chula Vista Police Station. This analysis illustrates demand for approximately 22,290. ft. of additional facility(s) to house law enforcement services. Regardless of jurisdictional alignment, the City of Chula Vista's Civic Center Master Plan (May 1989) indicates the existing police facility has adequate capacity to accommodate anticipated law enforcement services, under the current Chula Vista General Plan, through the year 2000. After the year 2000, some type of facility augmentation will be necessary, including options such as storefronts, joint-use facilities, interim facilities or a new station.

The County of San Diego Sheriff's department provides 3 patrol shifts per day per 10,659 people (FY 93-94) and has a planning objective of 3 patrol shifts per day for every 10,000 people (CPFE). Facility needs should be examined during SPA level planning.

V. Facilities

One 22,290 sq. ft. police station located in the Eastern Urban Center is necessary to serve the Otay Ranch at build-out, in conformance with the Otay Ranch goals, objectives and policies.

Additional facilities within villages or shared use of other public facilities may be considered at the SPA level. The size and character of these facilities will be determined, in part, by the necessary operational structure and cost and by jurisdictional arrangements.

Storefronts can serve as "outlets" for multiple civic services, such as fire safety or public information, in addition to law enforcement services.

VII. Processing Requirements

A. SPA Requirements

- Facility site identified, with consideration of SPA plan for the Eastern Urban Center.
- Equipment needs identified.
- Financing methods identified by the appropriate law enforcement agency and implementation method assured.
- Develop site design techniques and guidelines to deter crime.
- Develop "Project Specific Guidelines" consistent with thresholds of the appropriate jurisdiction.

B. Tentative Map Requirements

- Conditioned to reserve or dedicate site, as appropriate.
- Funding identified.
- Implement project specific guidelines.

C. Final Map Requirements

- Site dedicated or reserved, as appropriate.
- Funding assured.

D. Building Permit

- Payment of impact fee (if appropriate).

-
- 1 Per 11/17/93 correspondence from the County Sheriff, these 8 minute and 16 minute standards would apply to Otay Ranch urban areas in the unincorporated area of the County of San Diego.
 - 2 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
 - 3 Hughes & Heiss 1991.

Library Facilities

I. Threshold

City of Chula Vista: 500 square feet (gross) of adequately equipped and staffed regional library facilities per 1,000 population.

County of San Diego: Provide 350 square feet (gross) of adequately equipped and staff library facilities per 1,000 population.

II. Goals, Objectives, Policies and Implementation Measures

Goal: Sufficient libraries to meet the information and education needs of Otay Ranch resident.

Objective: Provide high quality and contemporary library facilities and services which meet the needs of the entire Otay Ranch Project Area.

Objective: City of Chula Vista: Five hundred square feet (gross) of adequately equipped and staffed library facilities per 1,000 population.

Objective: County of San Diego: Three hundred and fifty square feet (gross) of adequately equipped and staffed regional/area library facilities per 1,000 population.

Policy: Assure that Otay Ranch libraries have sufficient funding for operation and maintenance.

Objective: Otay Ranch libraries will be equitably financed by all new development that will benefit from the facilities.

Policy: Participate in development impact fee programs, or provide adequate books and library space as "turn-key" facilities.

Policy: Include the following factors in the determination of the best sites for branch libraries: a) Access to the intended service population; b) Existing library deficiency in intended service area; c) Suitability of site to meet identified needs; and d) Location of the site relative to complementary facilities, such as schools, parks, and civic centers.

Policy: When feasible, participate in joint powers agreements with the Department of Park and Recreation, school districts and other appropriate agencies for the development and operation of their respective facilities.

Policy: The library facility standard may be satisfied through the provision of decentralized facilities within villages. The size and character of these facilities will be determined, in part, by the necessary operation structures and cost by jurisdictional arrangement at the SPA level.

III. Existing Conditions

The County of San Diego, City of Chula Vista, and the City of San Diego, provide library and media services for the Otay Ranch area. Attachment A, Existing and Proposed Library Facilities, illustrates the location of library facilities presently surrounding Otay Ranch.

A. County of San Diego

The County of San Diego has 31 branch libraries, and bookmobiles. Three library facilities serve the South County area, and are located in Bonita, Imperial Beach, and Lincoln Acres. A new library facility is proposed for the Rancho San Diego area. The County provides bookmobile service for circulation and distribution in rural areas. The size of a County library facility is largely dependent on population and distribution. The County's goal is to provide two volumes/capita. The County Library's objective is to provide a ratio of 0.35 sq. ft. of library space/resident served. The County provides .13 sq. ft./resident (CPFE). County libraries have agreements adding up to 101,500 sq. ft. of additional library space which will add .12 sq. ft. per resident served, or a total of .25 sq. ft./resident in the service area.

B. City of Chula Vista

The City of Chula Vista has three library facilities. The largest is located at 365 'F' Street in the civic center. This library is a one story, 55,000 sq. ft. facility and circulates over 1 million books. The library's collection has 220,000 books and other materials as well as 152 seat auditorium and two conference rooms. The second library, Castle Park/Otay, is located at 1592 3rd Avenue. This facility is 1,700 sq. ft. of leased space and has a collection of 15,000 books. The third library

facility is a 600 sq. ft. leased facility in the Woodlawn Park Community Center at 115 Spruce Street. There are 7,500 books in this location. The City of Chula Vista employs 100 paid personnel (57 F.T.E.) in its library system and has over 50 volunteers.

The City of Chula Vista is planning three new library facilities. A 35,000 sq. ft. facility is proposed in the Montgomery/Otay Planning Area. The City of Chula Vista recently received a \$6,747,528 grant from the State of California to construct this library at 4th and Orange Avenues. This facility should be complete by February 1994. The Castle Park Branch will be closed when the new library opens.

The second library facility is proposed in the eastern portion of Chula Vista at East "H" Street and Paseo Ranchero in the Sweetwater/Bonita Planning Area. It may be built in phases, with a maximum size of 35,000 sq. ft. The third area library is proposed for the Eastern Territories Planning Area in EastLake Village. It is planned at 20,000 sq. ft. The EastLake library may serve initial development on the Otay Valley Parcel of Otay Ranch.

C. City of San Diego

The City of San Diego has two branch libraries that serve the Otay Ranch Project Area. One 4,100 sq. ft. branch is located in San Ysidro, with a collection of 20,000 books. The second facility is located in Otay Mesa East and is 10,000 sq. ft., with a collection of 48,000 books. This library does not serve the unincorporated "East Otay Mesa." Book mobile service is provided to areas which have less than 20,000 people not living within two miles of a branch library.

A third branch is proposed in the year 2000, in the Otay Mesa East Development near Brown Field. This will also be a 10,000 sq. ft. facility.

The City of San Diego uses a population measure of 20,000 people/branch. New branch libraries should be a minimum of 10,000 sq. ft. and maintain a collection of 40-45,000 volumes. Distribution and routing is provided in the main library facility.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

The Otay Ranch population generates a demand for 36,758 sq. ft. of additional library space².

A. City of Chula Vista

The demand generation analysis identifies an additional 36,758 sq. ft. of library space should be constructed to serve the Otay Ranch Project Area. This estimate is based upon the standard of an additional .5 sq. ft. of library space/capita to serve the future community needs of Otay Ranch. The Otay Ranch regional library serves as a main library and this facility should provide approximately .5 sq. ft. per Otay Valley Parcel resident. The regional library should be provided through participation in a development impact fee program or provision of a turn-key facility.

B. County of San Diego

The demand generated from the Proctor Valley and San Ysidro Mountains areas will be met through the provision of a 36,758 sq. ft. regional library or village libraries. In addition, these areas can be served by a book mobile when the rural population reaches 2,500.

V. Facilities

One 36,758 sq. ft. library facility located in the Eastern Urban Center is necessary to serve the Otay Ranch at build-out, in conformance with goals, objectives and policies. This facility would serve as a "main" library for all residents of Otay Ranch, and could offer a full range of research, reference, periodicals, gallery space, storage, binding and repair, distribution and translation services. The design of the facilities should allow for multi-use functions and should provide portable seating and walls for small meeting rooms, display, and exhibit space for cultural arts.

Alternatively, one or more village libraries could be provided, reducing the size of the “main library” in the EUC. The decision to create village libraries of a single central library will be made at the SPA level.

By locating the main library facility in the Eastern Urban Center, several goals for the area can be achieved: to provide cultural elements within Otay Ranch; to centrally locate the facility with a 2 mile service radius serving a majority of the Otay Ranch population; and to locate libraries within retail/commercial areas, which is primary to their success. The EUC will provide foot traffic from retail and commercial services, and additional governmental users will also benefit from this central location. The location of the new central library facility should occupy an area of higher density to insure public access by all socio-economic groups to library information and services. Libraries may be encouraged to co-locate with public schools, senior centers, local parks, art and cultural institutions and other compatible public facilities. Co-location may reduce operating costs and help establish a village atmosphere.

VI. Processing Requirements

A. SPA Requirements

- Specific library facility site identified with consideration of the plans.
- Equipment needs identified.
- Timing of construction consistent with the Public Facility Financing and Phasing Plan.
- County library requirements determined with the first SPA processed in the unincorporated area.

B. Tentative Map Requirements

- Conditioned to dedicate, zone or reserve site, as appropriate.
- Funding identified.

C. Final Map Requirements

- Site dedicated, zoned or reserved, as appropriate.

- Funding assured.

D. Building Permit

- Payment of impact fee (if established).

¹ These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

² The City of Chula Vista Library standard of .5 sq. ft. per capita was applied to population generated on the Otay Valley Parcel, including Villages 3, 9 and 10 as residential development, resulting in 31,187 sq. ft. demand. The County of San Diego Library standard of .35 sq. ft. per capita was applied to the population generated on the Proctor Valley and San Ysidro Mountains parcels, resulting in a demand for 5,571 sq. ft.

Parks, Recreation and Open Space

I. Park Standards

This section is a summary of park and recreational facility definitions for the County of San Diego, City of Chula Vista and the National Recreation and Park Association.

A. County of San Diego

The County Department of Parks and Recreation has the responsibility for planning, developing, operating and maintaining County park and recreation facilities for the unincorporated community (County Recreation Element IV-21). The County also participates in joint powers agreements and other agreements and partnerships with other public and private agencies to develop parks and operate facilities.

1. Regional Parks

Regional parks are intended to service residents and visitors of the entire County. Regional parks designed for intensive recreation may contain ballfields, children's play areas, or other facilities intended for active recreation. Regional parks may also include specialized facilities, such as equestrian centers, swimming pools, golf courses, and areas of historic, cultural, or recreational interest to a broad spectrum of the County's population.

The larger regional parks are usually areas of natural quality for nature oriented outdoor recreation. These primarily undeveloped regional parks may include camping, riding and hiking trails, nature centers, picnic areas, active and informal play areas and natural open areas. Generally, about 80% or more of the land in these parks is reserved for preservation, natural resource management and natural open space, and 20% or less is developed for active recreational uses. These parks must be large enough to encompass the resource to be preserved and managed, as well as to accommodate appropriate recreational use.

The County of San Diego park standards require 15 acres per 1,000 population of regional park land. The County recommends a minimum regional park site size of 200 acres, with a minimum of 50 usable acres for recreation.

2. Local Parks

Local parks include both neighborhood and community parks. The County Recreation Element states the following size parameters for area parks:

Neighborhood Parks	5 - 20 acres
Community Parks	20 - 100 acres

In addition to neighborhood and community parks, local park land may include accompanying open space areas such as parkways and scenic corridors, greenways, slopes, riding and hiking trails, school playgrounds, and other public facilities which meet part of the need for local recreational facilities.

County standards adopted in 1972, and revised in 1982, identify the following facilities which may be included in local parks:

- 1 basketball court for every 5,000 people
- 1 baseball field for every 6,000 people
- 1 softball field for every 3,000 people
- 1 tennis court for every 2,000 people
- 1 - 25 meter swimming pool for every 10,000 people
- 1 skating rink for every 30,000 people
- 1 outdoor theater (non-commercial) for every 20,000 people
- 1 shooting range for every 50,000 people
- 1 golf course for every 25,000 people

See Attachment A for a comparison of facility standards by jurisdiction.

The County Park Lands Dedication Ordinance (PLDO) requires 3 acres per 1,000 population for local parks. The requirements of the PLDO can be satisfied through the dedication of land, the payment of fees, the provision of private or public recreation facilities, or a combination of these methods.

Pursuant to the County of San Diego standard of providing an additional 12 acres of local park lands and open space, the Otay Ranch GDP/SRP provides in excess of 12 acres per 1,000 population of local open space. The Otay Ranch

GDP/SRP meets this requirement through the provision of local park lands/open space on a ranch-wide basis, exclusive of regional park facilities, by providing the following: open space buffers along arterials, open space corridors through Villages Seven, Ten, Eleven and the Eastern Urban Center, and hiking and riding trails in the villages, the Management Preserve, town squares and other areas designed to provide recreational opportunities and visual relieve to the Otay Ranch residents.

B. City of Chula Vista

1. Local Parks

The City of Chula Vista also defines neighborhood and community parks as local parks. The Chula Vista General Plan recommends minimum park sizes of 15 acres for community parks and 7 acres for neighborhood parks. The desired size is 20 to 30 acres for community parks and 10 to 15 acres for neighborhood parks.

The Chula Vista Park Lands Dedication Ordinance (PLDO) requires 3 acres per 1,000 population for local parks. The requirements of the Chula Vista PLDO can be satisfied through the dedication of land, the payment of fees, the provision of private or public recreation facilities, or a combination of these methods.

Neighborhood Parks: The Chula Vista General Plan recommends 7 acre neighborhood parks that include facilities based on population such as:

- 1 picnic shelter for each 1,000 people
- 1 tennis court for each 2,000 people
- 1 softball field for each 5,000 people
- 1 multi-purpose court for each 5,000 people
- 1 soccer field for each 5,000 people
- 1 handball / racquetball court for each 20,000 people

Community Parks: In addition to those facilities listed above, the Chula Vista General Plan, Park and Recreation Element, requires the following facilities in a community park:

- 1 - 25 meter swimming pool for each 10,000 people

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- 1 - 50 meter swimming pool for each 20,000 people (inclusive 25-meter pool standard)
- community center / gymnasium for each 24,000 people
- lighted softball field for each 5,000 people

C. National Standards

The National Recreation and Park Association provides standards and guidelines for the development of recreational facilities not included in the standards of local jurisdictions. These guidelines include:

<u>Activity</u>	<u>No. of Units/Pop.</u>	<u>Service Radius</u>
Badminton	1 per 5,000	1/4 - 1/2 mile
Handball	1 per 20,000	15-30 minute travel
Indoor Ice Hockey	1 per 100,000	30 - 60 minute travel
Volleyball	1 per 5,000	1/4 - 1/2 mile
Field Hockey	1 per 20,000	15-30 minute travel
Football	1 per 20,000	15-30 minute travel
1/4 Mile Track	1 per 20,000	15-30 minute travel
Archery Range	1 per 50,000	30 minute travel

These standards are suggested guidelines only and should be tailored to the needs of a given community.

II. Goals, Policies, Objectives And Implementation Measures

Goal: Provide diverse park and recreational opportunities within Otay Ranch which meet the recreational, conservation, preservation, cultural and aesthetic needs of project residents of all ages and physical abilities.

Objective: Identify park, recreational and open space opportunities, where appropriate, to serve the South County region and San Diego County as a whole.

Policy: Provide local and regional trails which run through and/or connect open space areas in: Otay River Valley, Poggi Canyon, Wolf Creek Canyon, Salt Creek

Canyon, Mt. Miguel, Jamul Mountain, Otay Mountain, Otay Lakes and BLM land.

Implementation Measure: Otay Ranch shall develop a local and regional trail system for riding, hiking and biking. The system should provide equestrian facilities, staging areas, local connections and regional through-routes grade separated from conflicting vehicular traffic where appropriate. Trail systems should have regional and local through-routes connected to other off-site areas such as city parks, greenbelts and BLM land. Trails may be separated for each activity.

Implementation Measure: Bicycle trails, paths and lanes should interconnect through a bicycle master plan.

Policy: Encourage joint use of utility easements with appropriate and compatible uses, including, but not limited to, open space, agriculture, parking and trails.

Policy: Planning for the Otay Ranch Regional Park System shall be coordinated with the planning for the Otay Valley Regional Park through the Otay Valley Regional Park Joint Exercise of Powers Agreement and the Otay Ranch Interjurisdictional Task Force to ensure that the regional parks include both active and passive recreation areas and trails, and consider adjacent development, community character, land use, conservation, preservation and citizen recreational needs are compatible with each other.

Policy: Create a large-scale open space and regional park system with components in the Otay River Valley, Jamul Mountain and San Ysidro Mountains including regional park land, open space, environmental preserves and local parks. This system shall connect to off-site parks and open spaces such as the Sweetwater River Valley, the western Otay River Valley and the San Ysidro Mountains BLM open space.

Policy: Provide 15 acres of regional park and open space per 1,000 Otay Ranch residents.

Policy: Plan for the development of multi-use trail facilities in the regional park and open space setting with appropriate connections to adjacent parks and facilities.

Objective: Maximize conservation, joint uses and access and consider safety in the design of recreational facilities.

Policy: Encourage public transit service to regional parks and provide access to handicapped and disabled persons, in accordance with the latest federal guidelines.

Policy: Commercial recreation opportunities may be permitted within town square, community and regional parks to generate revenue to defray park operational expenses.

Policy: Utilize conservation measures including reclaimed water, efficient irrigation systems and drought tolerant plant material in the development of public and private parks where allowed.

Policy: Minimize park operation and maintenance costs and identify funding sources for continued operation and maintenance of all Otay Ranch park and open space land.

Objective: Provide neighborhood and community park and recreational facilities to serve the recreational needs of local residents.

Policy: For the purpose of calculating the County's local open space requirement, parks, open spaces and golf courses with public access may be appropriate greenbelt areas.

Policy: Provide a minimum of three acres ¹of neighborhood and community park land (as governed by the Quimby Act) and 12 acres per 1,000 Otay Ranch residents of other active or passive recreation and open space area.

Policy: Encourage the design of park sites adjacent to public schools and other public lands where co-location of facilities is feasible. Joint use agreements with school districts are encouraged.

III. Existing Conditions

The only authorized recreational activity currently occurring on Otay Ranch is a gun club for skeet and trap shooting located adjacent to Rock Mountain at the western end of the Otay River Valley.

The County of San Diego, City of San Diego and the City of Chula Vista Park and Recreation Departments and the Bureau of Land Management provide recreation services in areas surrounding the project boundaries. These agencies provide active recreational programs and facilities and maintain park areas for passive recreational use. The Otay Ranch is also adjacent to the Olympic Training Center which plans to provide limited recreational services to area residents. Private businesses provide outdoor recreational activities to community residents in areas surrounding Otay Ranch.

A. County of San Diego

In 1990, there were 579.3 acres of local park land in the unincorporated areas of the County, which equates to 1.45 acres per 1,000 unincorporated area residents.

There are 16,330 acres of County owned regional park land as of 1990. The County regional park land total equates to approximately 6.6 acres per 1,000 residents in the region. Primarily undeveloped regional parks make up over 95% of the regional park acreage total. Generally, 80% or more of the land in these parks is reserved for preservation, natural resource management and natural open space. San Diego County recreational facilities in the areas surrounding Otay Ranch include:

Local Parks

- Sweetwater Lane Park (11.3 acres)

Regional Parks

- Otay Lake Park (70 acres)
- Sweetwater Park (571 acres)

Special Study Areas

- South Bay Biological Study Area (27 acres)

B. City of Chula Vista

The City of Chula Vista has 5 community parks (170 acres) 30 neighborhood parks (122.9 acres), one special purpose park (3.4 acres), and 6 mini-parks (1.9 acres). The City has 292.9 acres of both neighborhood and community parks serving a population of approximately 135,163, which computes to 2.1 acres per 1,000 population. To satisfy City standards of three acres per 1,000 population or 112.1 additional acres for a total of 405 acres is needed to serve the present population. The City plans to add 61.5 acres west of I-805 and 320 acres east of I-805 in response to population growth.

Attachment B contains a description of Chula Vista parks, including existing and planned park land in areas adjacent to Otay Ranch.

C. City of San Diego

The City of San Diego Water Utilities Department and the California Department of Fish and Game oversee recreational activities at the Lower Otay Lakes Reservoir. The Lakes provide boating, duck hunting, hiking and fishing opportunities and is very popular among area residents. Lower Otay Lake is 1,100 acres at spillway level and currently covers approximately 800 acres. The City of San Diego leases land east of Otay Lake (Harvey's Arm) to a glider/air sports port operator. The southern portion of the lake is adjacent to the County's Otay Lakes Park. The entire lakes open space area is 2,174 acres.

The City of San Diego Lakes Recreational Development Plan recommends that non-motorized boating opportunities on the City-owned reservoir should be expanded through the development of an aquatic oriented recreation center. Such a center could offer rental equipment and instruction in sailing, rowing, canoeing/ kayaking, water safety and fishing.

D. Other Regional Considerations

1. Bureau of Land Management

The Bureau of Land Management (BLM) allows recreational uses on its two undeveloped parcels located on the upper slopes of the Jamul Mountain and those adjacent to the Otay Ranch. Existing recreational uses include: picnicking and day hiking, camping, hunting and shooting, hang gliding, two wilderness study areas (rare plants), and "off-highway" vehicle use areas.

The BLM Otay National Cooperative Land and Wildlife Management area is approximately 20,000 acres. The BLM has completed the South Coast Planning Area Data Resource Management Plan and Environmental Impact Study for the area which outlines additional recreational uses.

2. Olympic Training Center (OTC)

The United States/ARCO Olympic Training Center (approximately 150 acres) located adjacent to the Otay Ranch will be the country's first warm weather, year-round multi-sport training facility. The mission of the Olympic Training Center to train and develop elite athletes. Sports included in Phase I are:

archery	rowing	track and field
soccer	canoe/kayaking	synch/swimming
cycling	team handball	diving
tennis	field hockey	volleyball
water polo	modern pentathlon	

Sports facilities include:

- 57,000 sq. ft. gymnasium
- 2 synthetic surface hockey fields
- 4 soccer fields
- athletics throwing field
- 400-meter track
- 50-meter pool

- diving well
- 12 clay tennis courts
- 6-bay boathouse and 2,000 meter regatta course
- 2-mile jogging track

Additional facilities include a residence for at least 300 athletes, dining facilities, administrative offices, visitors center, and a sports medicine and testing facility.

The Olympic facilities will be available to the community on an organized basis during periods when these facilities are not in use for Olympic athlete training. Each facility may be available up to 20% to 30% each year. The OTC may also be used for special competitions and will offer off-site educational programs in conjunction with area school programs. The OTC is an additional recreational resource for South County residents, but is not considered in calculations to satisfy park and recreation demands within Otay Ranch.

3. Private Parks and Commercial Recreation

Commercial recreational facilities surrounding Otay Ranch include: 4 golf courses (Chula Vista Municipal Golf Course, Bonita Golf Course, San Diego Country Club and EastLake Golf Course²), riding stables, go-cart tracks, family fun centers, movie theaters, arcades, bowling alleys, skating rinks, miniature golf courses, recreational vehicle and tent camping.

The area also has private parks and recreational services such as those offered within the EastLake development.

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents³.

A. Local Park Acreage

In accordance with the 3 acres per 1,000 population standard and a projected build-out population of 78,555 residents, Otay Ranch will have approximately

237 acres of community and neighborhood parks as defined in the Park Facility System Section below (See Attachment C).

Based upon the recommended policies, the following park improvement standards are recommended for planning purposes⁴.

- 1 softball field/5,000 people
- 1 tennis court/2,000 people
- 1 50-meter pool/20,000 people
- 1 theater/20,000 people
- 1 basketball court/5,000 people
- 1 golf course/25,000 people
- 1 multi-purpose court/5,000 people
- 1 soccer field/5,000 people
- 1 community center /gym/24,000 people
- 1 picnic shelter/1,000 people
- 1 handball court/20,000 people

In addition to these facilities, other amenities such as restrooms, walkways, play equipment will be included within park sites as necessary and appropriate.

B. Park Facility System

It is recommended that a four-tiered system of public parks be provided through town squares and neighborhood, community and regional parks. This system will provide:

- compatible park amenities within the town square parks;
- active play facilities within the neighborhood parks;
- community-level playing fields and complexes within the community parks; and
- region-wide active and passive recreational areas within the Otay Valley Regional Park and San Ysidro Mountain Regional Park.

The Otay Ranch trail network connects the park system and the villages of Otay Ranch. This network of pedestrian walks, hiking/biking trails and equestrian trails links parks with each village. This linkage is a key design concept for Otay Ranch and will further reduce reliance on the automobile for local transportation needs.

The location of parks requires consideration of the amount and location of physical spaces, service standards, service radius, co-location of land uses and other design issues. Usable park acreage, for local parks, should generally conform to the following criteria: playing fields and areas designated for built facilities should be graded to a 2% slope; recreational lawn areas should not exceed a 4% slope; perimeter areas should not exceed a 3:1 slope; and unique or desirable land forms should be retained and integrated into the park design, with credit toward park requirements.

1. Town Squares: Town Squares are located in some village core areas to serve the village residents. These parks average one acre and may include tot lots, playground equipment, turf areas, picnic areas and similar active and passive recreation areas and improvements.

Town Square parks will provide a focal point for the village core and reflect a pedestrian design and urban character due to their proximity to higher density residential and commercial uses.

These parks will be private parks and will be owned and maintained by a central business district (or similar private maintenance entity). Guidelines for these parks shall be developed at the SPA level. Park dedication credit will be permitted for these parks.

2. Neighborhood Parks: Neighborhood parks are located to serve people within a 1/2 to 3/4 mile radius within each residential village. These parks serve the day-to-day recreational needs of local residents. Each neighborhood park should be sited in conjunction with schools wherever feasible. The size and location of neighborhood parks shall be determined at the SPA level of planning. Neighborhood park facilities typically include tot lots, parking, restrooms/maintenance buildings, playground equipment and play areas. The neighborhood parks are located in or adjacent to the village core or within the

residential areas of the village. Pedestrian trails are provided to link these neighborhood parks to the residential neighborhoods.

In the more populated villages, neighborhood parks may be supplemented by town squares.

3. Community Parks: Community parks are located to serve the residents of multiple villages within an approximately 1 to 2 mile radius. Each park should be a minimum of 25 acres and offer intense recreational facilities such as athletic complexes, multi-purpose fields, court activities, large swimming pools and areas for outdoor active and passive recreation. Activities and amenities may include softball, youth baseball, soccer, tennis, basketball, volleyball, racquetball, community buildings/facilities, family and group picnic areas, and other large scale areas for organized active and passive recreation. They are planned to serve the active recreational needs of multiple villages.

Three community parks are planned for Otay Ranch within Villages 2, 10 and the Eastern Urban Center. These park locations are linked to regional parks and open spaces.

4. Regional Parks: Regional parks are areas of natural quality used primarily for nature oriented outdoor recreation. The primary purpose of these parks is to preserve and interpret sensitive environmental resources, and make these resources available for public recreational activities and enjoyment. Regional parks may include recreational activities such as camping, riding and hiking trails, nature and interpretive centers, picnic areas, golf courses, active and informal play areas and natural open areas. A regional park should be a minimum of 200 acres, with a minimum of 50 usable acres for active recreation. Regional parks achieve two important objectives:

- Provide residents of both the local community and region with broad-scale recreation, trail opportunities interpretive educational facilities; and
- Protect regionally-significant environmental resources (e.g., biological habitats, historic sites, etc.).

Regional park sites are selected because they are areas of natural quality worthy of preservation and public enjoyment, and also because they are areas which can

be utilized and enhanced for large-scale, nature-oriented and interpretive outdoor recreation.

Regional parks may include active recreational uses such as golf courses, equestrian centers, and sports complexes (e.g., adult softball facility), and may also include camping, picnicking, nature centers, museums, informal play areas, and natural open space and preserves areas. Regional parks have parking, restroom, and other support facilities.

The Otay Valley Regional Park will be the first priority site for designating the required Regional Park acreage. If 100% of the requirement cannot be accommodated here, then areas within the eastern parcels and within the Management Preserve boundaries may be designated to achieve this standard.

Otay Valley Regional Park: A regional park is being planned in the Otay River Valley to provide for a wide range of active and passive recreation uses. These active park uses should be concentrated in easily accessible nodes and located primarily in upland areas north of the Otay River and toward the western portion of the river valley. Active recreational areas may comprise up to 400 acres of the entire regional park. The City of San Diego, County of San Diego and City of Chula Vista have formed a Joint Exercise of Powers Agreement (JEPA) which is in the process of developing park concept plans, including activity areas, for the Otay Valley Regional Park. Recommended policies call for coordinated planning between the JEPA and Otay Ranch planners and the manager of Otay Management Preserve.

San Ysidro Mountain Regional Park: A second regional recreation area may be established in the San Ysidro Mountains Parcel. This regional park can provide limited passive recreation opportunities and facilities for hiking, picnicking, camping, nature appreciation, natural and cultural history education and interpretation. Appropriate trail linkages to the BLM Wildlife Management Area and the County trail system will also be provided.

The San Ysidro Mountain Regional Park could have limited improvements, focused on public opportunities for nature interpretation and education and passive facilities. This park could be improved in conjunction with a larger Resource Management Area, and could include not only an

interpretive/educational center, but passive facilities such as hiking and riding trails, camping, and picnic areas and wildlife observation.

C. Private and Commercial Recreation

Private recreational facilities can supplement the public parks and recreation system. The size of private recreation facilities may range from an individual amenity such as a swimming pool serving a portion of a project, to a multi-use recreation center serving an entire neighborhood or community. Private recreational facilities may receive up to a fifty (50) percent credit toward satisfying the local park requirements within County areas.

Commercial recreation activities are encouraged to augment and enhance services available to the future residents of Otay Ranch and other residents in the region. Commercial recreation uses such as golf courses, riding stables, model airplane ports, skating rinks etc. may be appropriate for location within Otay Ranch.

Certain commercial operations may also be appropriate for location in town square, community or regional parks. Consideration should be given to special purpose parks such as nature interpretive centers, bicycle parks, botanical gardens and privately operated amusement parks such as water slides and miniature golf courses. Criteria for the location of commercial ventures in town squares, community and regional parks will be developed in conjunction with the appropriate agency.

D. Open Space

Natural Open Space: The majority of natural open space and regional parks within Otay Ranch are governed by the Resource Management Plan (RMP). Areas within the RMP's management preserve include wildlife corridors, open space areas, trails, nature interpretive centers and other natural amenities. The RMP provides for the preservation and enhancement of natural resources, and creates limited opportunities for recreational activities as well.

Both the Jamul Mountain and San Ysidro Mountain areas have been identified as areas suited for low intensity, passive recreational uses. Permitted uses would include hiking, camping, picnicking, equestrian trail and nature appreciation.

Precise acreage and plans have not been formulated for any of the areas, but it is clear these resources can respond to the need for regional open space and limited recreational opportunities. Permitted construction within open space areas could include: 1) public interpretive centers for habitat, cultural, and paleontological resources; 2) botanical gardens and a native plant nursery; 3) on-site research facilities (as defined in the RMP); 4) limited active regional recreational facilities; 5) public infrastructure; and 6) low intensity camping and equestrian facilities.

Other Open Space: Other open space is defined as a combination of neighborhood and community parks, riding and hiking trails, school playgrounds, utility easements, open space scenic corridors, pedestrian walk ways, buffers, golf courses and other public recreational facilities and "green spaces" which help meet the County's additional 12 acre per 1,000 population open space and local park requirement.

E. Riding and Hiking Trails

The mobility and recreational trail network provides a link between the various Otay Ranch parks, village cores, activity areas, open space and points of interest; forming a comprehensive network. This system is augmented by an alternative transportation network and road system that is more fully described in the GDP/SRP. The following are the elements of this comprehensive trail network.

Regional Trails: Rural trails will accommodate hiking, biking and equestrian travel depending upon gradient and adjacent environmental sensitivity. They are located within all the major open space systems (Management Preserve and Regional Park) and will link to offsite regional trails. Within the larger open space areas, trails will accommodate loop trips of 1/2 hour, 1 hour and 2 hour trips. Regional trails are intended to link open space areas to the urban core. Where trails take on a more urban character, horses may be prohibited. South of the resort site, along the northern edge of Otay Lake, the existing roadbed will be converted to a bike and walk way.

Regional Bike Ways: Regional bike ways will be designated in each direction, along all circulation element roads in Otay Ranch, to carry bicycle traffic. These will connect to existing and proposed offsite bike lanes and access each Village.

Village Trails: Within each village, a complete system of trails and walks will connect the major areas of each village and provide access to adjacent villages and regional trails and bike systems. These village trails provide a direct link to the village core and may occur along or within village streets or along special greenbelt corridors.

V. Processing Requirements

A. SPA Requirements

- Provide a Parks Master Plan.
- Specific facility site identified and reserved including consideration of areas adjacent to public schools and other public lands where co-location is feasible and desirable.
- Equipment needs identified.
- Alternative financing methods refined.
- Alternative maintenance entities and funding identified.
- Timing of construction consistent with Otay Ranch Park and Recreation Implementation Plan identified.
- Sites for special purpose parks reviewed.
- Develop plans for the use of reclaimed water, as appropriate.
- Design criteria for land adjacent to regional parks prepared.
- Request recommendations from County Transit System regarding transit facility needs.

B. Tentative Map Requirements

- Conditioned to provide site.
- Funding identified for local parks.
- Review existing or proposed trails on adjacent properties to ensure linkages.

C. Final Map Requirements

- local park sites dedicated.

- Funding assured for local parks.
- Implement design guidelines.

D. Building Permit

- Payment of impact fee (if established).

¹ This policy is intended to be implemented within each village. That is, each village should provide sufficient neighborhood and/or community park land to enable Otay Ranch to meet the standard. However, community parks cannot be provided incrementally within each village because of the size and location of the planned community parks. The GDP/SRP identifies community parks, averaging 25 acres, in three villages (Villages 2, 10 and 12). Accordingly, it is recognized that during the build-out of Otay Ranch, the actual provision of neighborhood and community parks will temporarily exceed or lag behind the requirements of the policy, depending on the timing of the provision of community parks. To ensure the timely provision of parks and to ensure the actual provision of neighborhood and/or community parks closely parallel the policy, the following formula is provided to determine the amount of park acreage provided in each village.

Variables:

OR Pop = Otay Ranch Population

OR L Pk = Otay Ranch Total Local Park Acreage

OR N Pk - Otay Ranch Total Neighborhood Park Acreage

OR C PK = Otay Ranch Total Community Park Acreage

V Pop = Village Population

V N Pk = Village Neighborhood Park Acreage

Formula:

OR L Pk = OR N Pk + OR C Pk

OR Pop *3/1000 residents = OR L Pk

OR L Pk - OR C Pk = OR N Pk

OR N Pk/OR Pop = Factor

V N Pk = V Pop * Factor

Otay Ranch Facility Implementation Plan Parks, Recreation and Open Space

- 2 The San Diego Country Club is closed to the general public as a recreational facility and EastLake Golf Course may have limitations on public access.
- 3 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.
- 4 Consideration should be given to specialized uses other than recommended standards which may better serve the community. It is recommended new residents assist in selecting special amenities such as casting ponds, shuffle board, boccie ball courts, velodromes, disk golf courses, recreational gardens, miniature trains, carrousel, lawn bowling and other unique facilities which can be included in some neighborhood community parks. Opportunities to lease certain facilities to commercial businesses should also be explored.

Otay Ranch Facility Implementation Plan
Parks, Recreation and Open Space

Attachment A
Park Population Standards By Jurisdiction

Facilities	Chula Vista	County	National
Picnic Shelter	1/1,000		
Tennis Courts	1/2,000	1/2,000	1/2,000
Baseball/Softball	1/5,000 (lighted)	1/6,000 baseball 1/3,000 softball	1/5,000 baseball 1/5,000 softball
Multi-Purpose	1/5,000		1/5,000 baseball 1/5,000 volleyball
Soccer	1/10,000	x	1/20,000 (field hockey) 1/20,000 (football) 1/10,000 (soccer)
Swimming Pool - 25 meter - 50 meter	1/20,000	1/10,000 1/20,000	1/20,000
Skating Rinks (artificial)	x	1/30,000	1/100,000 (ice hockey)
Outdoor Theatres (non-commercial)	x	1/20,000	n.a.
Shooting Ranges	x	-1/50,000	1/50,000
Basketball	x	1/5,000	1/5,000
Golf Courses	x	1/25,000	1/50,000
Handball	x	x	1/20,000
1/4 mile running track	x	x	1/50,000
Archery	x	x	1/50,000
Gym	1/24,000	x	x

Attachment B

Surrounding Park Facilities

Rancho del Rey - Discovery Park

Discovery Park is a 25 acre community park located in the Rancho del Rey 2 development. The park is approximately 1 mile from the northern edge of the Otay Valley Parcel. The park includes three lighted baseball fields, tot lot, restrooms and parking lot.

Sunbow Park

Sunbow Park is a 10 acre (net) community park located along East Palomar Street. The park is approximately 1/3 miles from the western edge of the Otay Valley Parcel. The park includes one 50-meter olympic swimming pool, community center/gym with a child care facility and three basketball courts, natural grass amphitheater, a man-made lake, passive space, picnic area, and children's play area. The park's service area is a 1.5 mile radius. The park is not adjacent to the neighborhood's school site.

Sunbow also proposes the development of 2 soccer fields in the outfield areas of 2 facing ballfields within new community park or at an alternate location of the joint city/school district yard if built.

In addition, the Sunbow Development includes a hiking/jogging trail along the south side of Orange Avenue which enters the Otay Ranch on its western boundary. Equestrian trails may be included on the north side of Telegraph Canyon Road and on the south side of Orange Avenue in open space areas.

Independence Park

Independence Park is a 4.1 acre neighborhood park consisting of a passive multi-purpose play area.

Sunbow I Park

The Sunbow 1 Park is a 4.0 acre neighborhood park which includes three tennis courts, play equipment, multi-purpose play areas and an exercise trail.

Greg Rogers Park

Greg Rogers Park is a 52.1 acre primarily passive community park on the western boundary of the Sunbow development east of I-805. The park is a joint-use facility between the City and the Chula Vista Elementary School District. The School District built the ball fields located just south of the school, while the City developed the passive park facility. The southern portion of the park is leased to the Boy's and Girl's Club which operates a facility at the location. Sunbow plans off-site improvements to Greg Rogers Park ballfields and will connect the park to the Sunbow community via a pedestrian connection to the Sunbow Trail system. This trail system is oriented along the parkways of the major roads in the Sunbow development. The park has 4 unlighted baseball/softball fields.

Rancho Del Rey Park

Ranch Del Rey Park is a 10.2 acre neighborhood park which includes 2 tennis courts, a multi-purpose play area, play equipment and a picnic area.

Sunridge Park

Sunridge Park is a 6.0 acre neighborhood park which includes 3 lighted tennis courts, multi-purpose play areas, play equipment and picnic areas.

Paseo Del Rey Park

Paseo Del Ray Park is a 3.0 acre neighborhood park with play areas and equipment and picnic areas.

Bonita Long Canyon Park

Bonita Long Canyon Park is a 12.5 acre neighborhood park with ball fields, restrooms, multi-purpose play areas, play equipment and picnic area.

Valley Lindo Park

Valley Lindo Park is a 4.2 acre neighborhood park with basketball courts, multi-purpose play areas, play equipment and picnic areas.

Salt Creek Parks

Salt Creek Parks are public recreation areas planned within Salt Creek Ranch. This park is designed to provide sports facilities in conjunction with picnic and passive recreation uses and connection to the adjacent natural open space areas by pedestrian, equestrian and bicycle trails. Proposed sports facilities include three lighted baseball/softball diamonds of varying sizes combined with two soccer fields, two lighted tennis courts and two lighted basketball/multi-purpose courts. The park also includes children's play equipment, parking, restrooms, open area play lawns, and access to the natural open space trail system.

In addition, a 7-acre park is planned on the western edge of Salt Creek Ranch along San Miguel Road. This park is designed to provide both active and passive recreational opportunities. Proposed facilities include two lighted tennis courts, two lighted multi-purpose basketball courts, a playground for young children and a more active playground for older children. A large open lawn area will offer opportunities for play and informal games. Picnic facilities, restrooms and parking will be provided. Ballfields will be located on the adjacent school site.

EastLake

The EastLake Master Plan includes over 400 acres of open space and park land. Six neighborhood parks are included within Eastlake I:

- EastLake Hills Swim and Tennis Club, a private 2.8 acre park with a junior Olympic swimming pool, spa, children's play area, picnic area and lighted tennis courts.
- EastLake Shores Beach Club, a 21.5 acre private park, includes a 13-acre lake, boat launching and fishing facility, swimming

lagoon, sand beach with volleyball and picnic facilities, meeting facilities and restrooms.

- Scobee Park is a 7 acre neighborhood park in the EastLake Business Center, which includes an employee recreation and fitness center with softball, soccer, basketball, and volleyball areas, restroom and locker facility, picnic area and par course.
- The development includes three other private neighborhood mini parks: Ashbrook Park, Shorebird Park and Cobblestone Park.

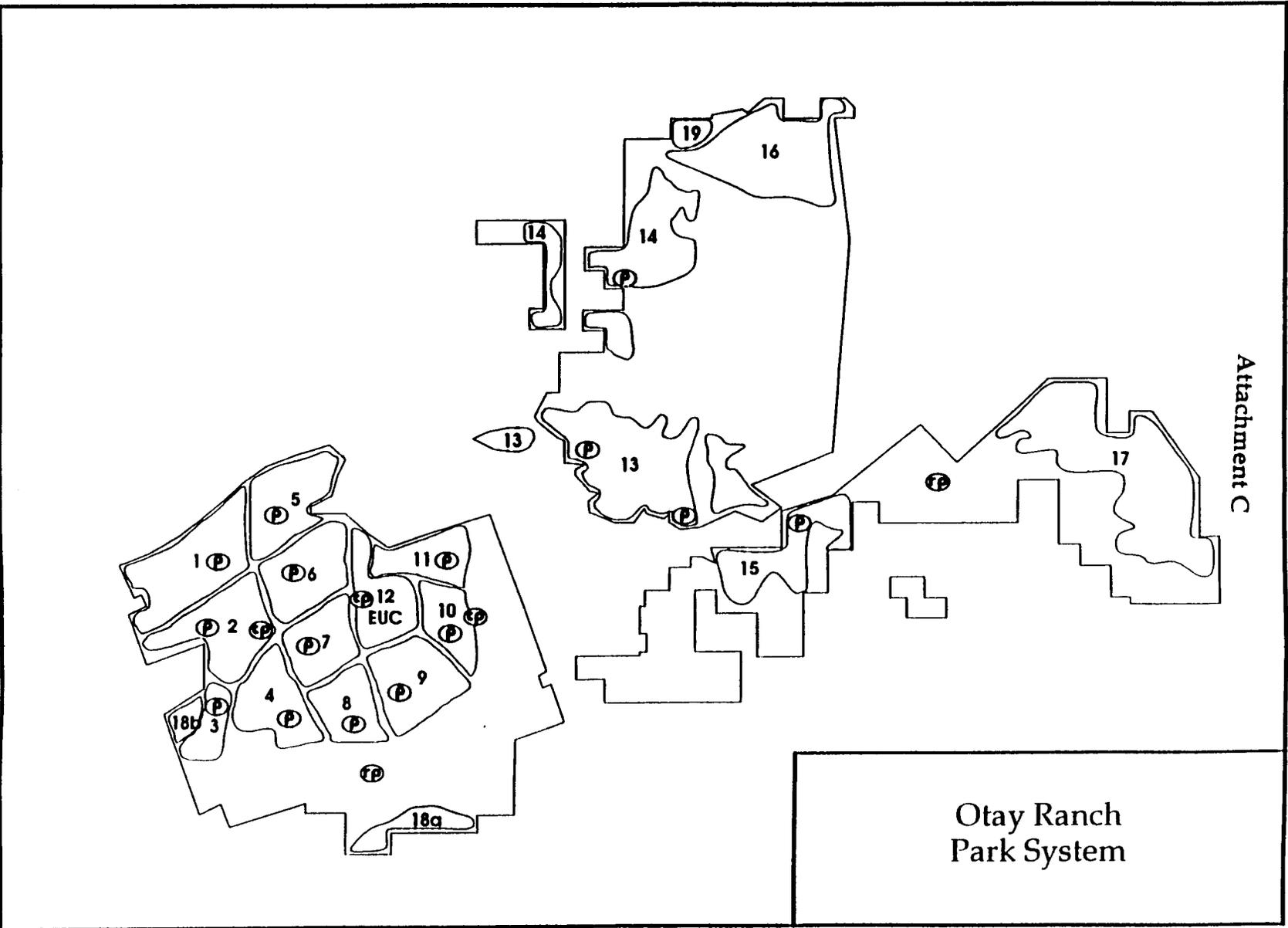
Within EastLake Greens, EastLake Community Park is a 13-acre Chula Vista community park adjacent to the future EastLake High School. An additional 11-acre park site adjacent to the elementary school site is also planned. Both parks will include lighted softball and soccer fields, children's play apparatus and picnic areas. In addition, three private 3 to 4 acre neighborhood parks will be developed in the EastLake Greens neighborhood.

Other area parks planned for areas surrounding Otay Ranch include:

- Sunridge Park
- Terra Nova Park
- Otay Valley Road & Brandywine
- Paseo Ranchero & Wolf Canyon
- Rancho Drive Park
- Bonita Miguel
- Eastlake High School
- Otay Valley

Otay Ranch Facility Implementation Plan
Parks, Recreation and Open Space

Attachment C



School Facilities

I. Threshold

Additional facilities needed to service children generated by the new development shall be provided concurrent with need, and shall be of the quality and quantity sufficient to meet, at a minimum, State Department of Education standards.

II. Goals, Objectives, Policies and Implementation Measures

Goal: Provide high quality, K-12 educational facilities for Otay Ranch residents by coordinated planning of school facilities with the appropriate school district.

Goal: Coordinate the planning of adult educational facilities with appropriate district.

Policy: Provide for the reservation of one or more sites for adult educational facilities to serve the residents of Otay Ranch.

Implementation Measure: Provide for the reservation of sufficient land/floor space within the EUC for the Sweetwater Union High School District adult education facility.

Policy: Locate schools in areas free of disturbing factors such as traffic hazards, airports or other incompatible land uses.

Policy: Ensure that schools are integrated into the system of alternative transportation corridors, such as bike lanes, riding and hiking trails, and mass transit where appropriate.

Policy: Provide general locations for private elementary and secondary schools within the plan area, spaced far enough from public schools and each other to prevent an over-concentration of school impacts.

Objective: School facilities shall be provided concurrently with need and integrated with related facility needs, such as child care, health care, parks, and libraries, where practical.

Policy: Coordinate the planning and siting of schools, recreational facilities, child care centers, libraries and other related public facilities.

Policy: Additional facilities needed to serve children generated by the new development shall be provided concurrent with need, and shall be of the quality and quantity sufficient to meet, at a minimum, State Department of Education standards.

Objective: Provide school district with 12 to 18 month development plan and 3 to 5 year development forecasts so that they may plan and implement school building and/or allocation programs in a timely manner.

Implementation Measure: Request school districts to indicate the level of facilities available to serve development projects requiring discretionary review.

Implementation Measure: Condition the approval of general plan amendments, specific plans, and other legislative land decisions on the developers' responsibility to mitigate funding of school facilities and the availability of school sites and facilities at the time of need.

III. Existing Conditions

The Otay Ranch is located within the jurisdiction of four elementary and two high school districts; Cajon Valley Union School District (K-8); Chula Vista Elementary School District (K-6); Jamul-Dulzura Union School District (K-8); San Ysidro School District (K-8); Grossmont Union High School District (9-12); and Sweetwater Union High School District (7-12). Attachment A depicts the district boundaries.

These school districts enrolled a total of 89,610 students, according to their CBEDS reports filed with the San Diego County Office of Education for Fall 1992.

**Otay Ranch Facility Implementation Plan
School Facilities**

**Current Enrollment
Fall 1992
Otay Ranch School Districts**

District	K-6	7-8	9-12	Spec Ed	Total
Cajon Valley Union	14,447	3,460			17,907
Chula Vista Elementary	18,240				18,240
Jamul-Dulzura Union	920	289		13	1,222
San Ysidro Elementary	3,104	679		85	3,868
Grossmont Union High			17,855	1,781	19,636
Sweetwater Union High		9,523	18,917	297	28,737
TOTAL	36,711	13,951	36,772	2,176	89,610

Source: "Enrollment by Grades, 1982-1992," San Diego County Office of Education

Students in these districts attend one of 58 elementary, 15 junior high/middle or 23 senior high schools, plus various special education and continuation high schools. Adult schools are not included.

**Otay Ranch Facility Implementation Plan
School Facilities**

Existing Schools

Fall 1992

Otay Ranch School Districts

District	Elem	Junior Middle	High	Other	Total
Cajon Valley Union	20	4	0	1	25
Chula Vista Elementary	32	0	0	3	35
Jamul-Dulzura Union	1	1	0	0	2
San Ysidro Elementary	5	1	0	0	6
Grossmont Union High	0	0	13	1	14
Sweetwater Union High	0	9	10	1	20
TOTAL	58	15	23	6	102

Source: San Diego County Office of Education

IV. Demand Generated

Build-out of the Otay Ranch would permit the development of 27,059 homes over four decades, creating a population of approximately 78,555 residents¹.

A. Student Generation

A "student generation factor" represents the average number of public school-age children in any one housing unit within a school district's service area. Student generation factors represent a reasonable estimate of the proportionate impact any dwelling unit has each year on enrollment in a district. School districts estimate factors in various ways and historically have utilized these factors to determine the physical impact of new development on district facilities.

Otay Ranch Facility Implementation Plan
School Facilities

Typically, student generation factors vary based on the type of housing unit, with single family units (and mobile homes on single family lots) generating the most students, mobile homes in parks generating the fewest students, and attached units (apartments/townhouses/condos) generating a figure somewhere in between. These factors can and do vary significantly throughout the region. Single family and multi-family student generation factors were provided by each of the school districts.

The following table shows the student generation factors for each grade group in each district. In the table, Grade 6 was separated as a distinct group because Jamul-Dulzura Union uses the middle school grouping of 6-8, while the other elementary schools use the K-6 grade grouping.

District	Student Generation Rates				Total
	1990				
	K-5	6	7-8	9-12	
Chula Vista	.257	.043			.30*
San Ysidro	.430	.070	.230		.73*
Sweetwater			.100	.190	.29*
Jamul-Dulzura	.510	.073	.127		.71*
Cajon Valley	.293	.037	.110		.44 SF
Cajon Valley	.14	.023	.047		.210 MF
Grossmont				.256	.256 SF
Grossmont				.102	.102 MF

* Same rate for SF and MF.

The student generation factors used by each of the school districts were applied to the number of new housing units estimated to be built in the Otay Ranch portions of each district's service area.

**Otay Ranch Facility Implementation Plan
School Facilities**

Three key assumptions for this forecast are:

1. future distribution of students among grades will be the same as current distributions in each of the existing districts.
2. future student generation will, on the average, resemble present student generation.
3. future students will attend the school district in which their homes are located, although in reality, this will not be practical in every case due to area topography and circulation systems.

Based on these key assumptions and student generation factors, an estimated impact of Otay Ranch on each of the existing school districts was determined.

District	Student Generation			Total
	Otay Ranch (Build-Out) ²			
	K-6	7-8	9-12	
Chula Vista	7,945			7,945
Sweetwater		2,687	5,106	7,793
Jamul-Dulzura	406	89		495
Grossmont	178			178
Total	8,529	2,776	5,106	16,411

B. Facility Needs

The State Department of Education identifies "ideal" campus sizes for a traditional (vs. year-round) program of 600-650 students per elementary school; 1,250-1,500 students per middle or junior high school; and 1,800-2,500 students per senior high school. These are considered optimal sizes based on site and personnel management and academic program. These size campuses house students in both permanent and temporary classroom structures. Site capacity goals of 650 (elementary), 1,500 (middle/junior high) and 2,500 (senior high) were used to estimate the ultimate facility capacity needs of Otay Ranch students within the Chula Vista Elementary and Sweetwater Union High School

districts. Site capacity is not an issue within the Jamul/Dulzura or Grossmont Union High School district because so few students are generated within those districts. To the extent fewer students are generated from Otay Ranch or higher or lower campus sizes are acceptable or desirable, the number of needed facilities will be affected.

A key assumption of these estimates is that school facilities in place at the time of build-out will be at capacity or overcrowded, meaning Otay Ranch students will not find space on existing campuses. This was done in an effort to arrive at an estimate of the maximum number of school facilities needed. To the extent capacity will be available in the districts' future campuses, fewer new schools may be needed than estimated. It is reasonable to expect that available capacity at nearby schools will be accessible to the students within a new development as an interim measure, e.g., while new schools are being constructed, or for permanent use. To the extent future capacity of existing schools is available, the number of new schools needed and the timing of their construction will be affected.

Also, for purposes of these estimates, a traditional calendar, not a "year-round" (multi-track) program is assumed. A year-round schedule could increase capacity on any single campus by as much as 20%. As districts seek additional capacity, and the State requires year-round programs as a condition of receiving State building funds, more and more traditional school year campuses are expected to be converted to multi-track year-round programs. In the case of Otay Ranch, if one-half of its 13 elementary schools were planned for larger enrollments due to year-round programs, at least one fewer school would be needed. If all of the Otay Ranch elementary schools were planned to house year-round programs, two fewer elementary schools, a total of 11 schools, would be needed to serve the same student population.

The following table estimates the number of schools each existing district would need to serve Otay Ranch students, assuming their other facilities are full, and there are no multi-track, year-round programs.

**Otay Ranch Schools
By District (Build-Out)**

District	Elem	Mid/Jr. High	Sr. High	Total
Chula Vista	12.22			12.22
Sweetwater		1.79	2.04	3.83
Jamul-Dulzura	0.63	0.06		0.68
Grossmont			0.07	0.07
Total	12.85	1.85	2.11	16.81

V. Facilities

The demand generated by the future residents of Otay Ranch indicates that up to 17 new schools (utilizing 280 acres is the highest impact scenario) will be needed to serve the Otay Ranch .

VI. Site Location Process

Locating sites for up to 17 new schools, most of which will not be needed until well into the 21st century, is not a simple task. The needs of schools today may well not be the needs of schools even fifteen years from now. In Otay Ranch, the siting of schools should be the result of a staged planning process to locate sites which are physically appropriate and rationally related to the development of the future community. The process should follow the outline set forth in Section VII of this Plan. This process highlights the steps to be undertaken at the General Plan, Specific Plan and mapping stages of the project. In addition, a regular (annual or bi-annual) review of this process, the development schedule and phasing, and funding issues should be conducted by the developer and the school districts' representatives to assure the most up-to-date information is being used for siting, sizing, building and funding school facilities.

VII. School Siting

School facilities should be sited according to the following criteria. While it is unlikely that every site can meet all criteria, every site should meet most of these criteria. The ideal site should be:

1. at least ten (10) usable acres for an elementary school, twenty-five (25) usable acres for a middle/junior high school, and fifty (50) usable acres for a senior high school, to adequately accommodate the loading and unloading of students, future expansion of facilities and offer design flexibility.
2. centrally located to residential development to reduce bussing requirements, reduce walking distances for young children, encourage after-hours use of facilities by the public and discourage vandalism.
3. adjacent to a street or road which can safely accommodate bike, foot and vehicular traffic. Sites should have no more than two sides with street frontage. Urban high schools are best located adjacent to collectors that can handle the increased traffic volume of student drivers and the entrance to the school should be signaled.
4. topographically and environmentally safe and suitable to reduce site preparation costs and permit maximum use of the site for physical activities.
5. of sufficient usable acreage on one level and configured to not limit the design of buildings and provide field and parking space.
6. surrounded by land uses that produce a minimum of noise and traffic often associated with commercial and heavy industrial areas.
7. located adjacent to parks to enable joint field and recreation facility uses.
8. vacant and undeveloped to reduce financial and political costs of site acquisition.

9. located such that utilities and services (e.g. cable television, fire protection, emergency medical services) are or will be readily available, to reduce site development costs.
10. near imminent development of adjacent properties to insure road and other necessary off-site improvements are available in a timely manner.
11. in a location acceptable to the State Division of Aeronautics with regard to distance from Brown Field.
12. a safe distance, i.e., as required by law, from contaminants or toxins in the soil or groundwater from landfills, fuel tanks, agricultural areas, power lines, utility easements, et. al.
13. outside of floodplains; on stable soils; away from fault lines.
14. integrated into the system of alternative transportation corridors, i.e., bike lanes, riding and hiking trails, and mass transit, where appropriate.

In addition, while it is acceptable and desirable, according to Sweetwater Union High School District, to locate junior high/middle schools near high schools, it is not desirable that either be located near an elementary school. The Chula Vista Elementary School District staff also stated a preference for this separation to avoid the mixing of older students with younger students.

VIII. Jurisdictions

Minor school district boundary changes are recommended to more efficiently accommodate students in the Otay Ranch. The 183 acres of the Proctor Valley Parcel in the Cajon Valley Union School District could be transferred into the Jamul-Dulzura Union School District. The 559 acres of the San Ysidro Mountains Parcel could be transferred from the San Ysidro School District to the Chula Vista Elementary School District. This would result in all Otay Ranch elementary school students attending either the Chula Vista Elementary or Jamul-Dulzura Union School District.

These boundary adjustments acknowledge that, due to current and proposed road systems, students would not be able to easily access schools within existing boundaries.

IX. Processing Requirements

A. SPA Requirements

- Identify and process school district boundary adjustments, as appropriate, through approval by the appropriate governing body.
- Select school site areas within each village from which eventual school sites could be developed.
- Prepare preliminary studies of general site areas showing relationships to existing and proposed circulation systems.
- Provide phasing schedule for school facilities
- Obtain preliminary approval, via field reviews of each general school site area from the State.
- Determine the appropriate facility financing mechanism.
- Obtain site review from the State.

B. Tentative Map Requirements

- Implement appropriate facility financing mechanism.
- Select specific candidate sites.
- Prepare a land use map which shows the specific location of the candidate sites.
- Prepare Environmental Impact Reports for candidate sites.
- Finalize district boundaries.

C. Final Map Requirements

- Dedicate school site

D. Building Permit

- Pay impact fees (if appropriate).

1 These figures are used for facility planning purposes, and estimate the maximum number of units approved by the City of Chula Vista and County of San Diego. These figures include the residential development of Village Three (741 DUs), Villages Nine and Ten (2,835 DUs), for a project total of 27,059 DUs and an approximate population of 78,555. Within the Chula Vista, Village Three's primary land use is industrial. Within the City and the County, the primary use of Villages 9 and 10 is university.

2 This analysis assumes all of the Central Proctor Valley area is within the Chula Vista Elementary Sweetwater Union High districts and all of Planning Area 17 is within the Jamul-Dulzura/Grossmont High school districts. The modest areas covered by the Cajon Valley and San Ysidro Elementary districts are discounted in this analysis since it is unlikely that any students will reside in those areas.

Otay Ranch Facility Implementation Plan
School Facilities

Attachment A

