

6.0 PUBLIC WORKS COMPONENT

of the LOCAL COASTAL PROGRAM

~~LOCAL COASTAL PROGRAM~~

6.1 INTRODUCTION

The provision of public works facilities - water, sewer and transportation services - is a central concern of the Coastal Act and is designated as the primary mechanism for land use planning within the Coastal Zone. Section 30254 of the Act, which establishes certain priority uses within the Coastal Zone, states in part that

"New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with provisions of this division . . . Where existing or planned public works facilities can accommodate only limited amounts of new development, services to coastal-dependent land use; essential public services and basic industries vital to the economic health of the region, state, or nation; public recreation; commercial recreation, and visitor-serving land uses shall not be precluded by other development."

Coastal Commission Regulations concerning the "common methodology" to be used in developing local coastal programs further emphasize the importance of public works facilities in land use planning. The Regulations require local governments to include the following data in the scope of local coastal programs:

- "A. *Where the application of the policies of Chapter 3 of the Coastal Act of 1976 requires limits or conditions as to the amount, timing, or location of public works facilities, an analysis shall be made to determine:*
1. *Existing and proposed capacities of such relevant public works systems;*
 2. *Key decision points for stages of facility expansion, and*
 3. *What portion of public works facilities capacity is allocated to new development within the area and what portion is reserved for priority uses . . ."*

This section of the Local Coastal Program contains the data on existing and proposed public works capacities required by the above regulation. In order to provide a basis for determining the extent and manner in which capacities will need to be allocated, an analysis of existing and potential demands for public services is also presented in this section. The allocation of remaining facility capacities to the priority land uses of Section 30254 of the Coastal Act, and the means of achieving these allocations, will be discussed in the final pages of this chapter.

6.2 WATER SUPPLY

6.2.1 EXISTING SUPPLY

~~As noted in preceding components of this document, Grover Beach relies primarily upon two sources for its water supply, the Arroyo Grande-Tri-Cities Mesa Groundwater Subbasin and the Lopez Reservoir Project. Water from these two sources is blended in City facilities and delivered to nearly all of the City's residential, commercial, and industrial uses. A very small number of residential developments and all agricultural activities rely on individual private wells.~~

Water supply for all areas within the city limits of the City of Grover Beach consists of groundwater from the Arroyo Grande-Tri-Cities Mesa groundwater subbasin and surface water stored at the Lopez Reservoir. These supplies are shared with other cities and agricultural uses in the region and water is allocated to the City of Grover Beach based on contractual agreements. Outside of these contractual agreements a very small number of residential developments, all agricultural activities, two large City parks and the State's Le-Sage Riviera golf course rely on individual private wells.

The existing water supply system is adequate to provide water supply for the entire City at build out as identified and defined in the City's General Plan, Zoning Code and Local Coastal Plan.

A. ARROYO GRANDE-TRI-CITIES MESA GROUNDWATER SUBBASIN ~~ARROYO GRANDE GROUNDWATER BASIN~~

The groundwater basin serving Grover Beach has been discussed in the chapter of this document on Coastal Resources. Significant characteristics of the groundwater basin are summarized below:

Size and Location: The California Department of Water Resources (DWR, 1979) investigated groundwater resources of southern San Luis Obispo County. The study focused on an area of approximately 47,000 acres bounded on the west by the ocean, on the south by the San Luis Obispo-Santa Barbara County line, and on the northeast by U.S. Highway 101. This basin drains a watershed area of about 130,000 acres and can be subdivided into three sub~~basins~~areas: the Arroyo Grande-Tri-Cities Mesa sub~~basin~~area, Nipomo Mesa sub~~basin~~area, and Santa Maria ~~subbasin~~subbasin. Grover Beach produces water from wells within the Arroyo Grande-Tri-Cities Mesa subbasin, which lies between the City of Pismo Beach and the northern part of the Nipomo mesa and encompasses a total area of 12,460 acres. The Department of Water Resources (DWR, 1980) ~~has~~ concluded that the Arroyo Grande-Tri-Cities Mesa and Nipomo Mesa ~~areas~~ subbasins are continuous with the Santa Maria basin to the south.

Storage Capacity: The Arroyo Grande-Tri-Cities Mesa ~~and Nipomo Mesa subbasins have a total storage capacity of 1,700,000 acre-feet~~ subbasin has an estimated storage capacity of 387,00 to 389,000 acre-feet (DWR, ~~2002~~1986). Usable storage above sea level is estimated to be between 27,000 and 29,000 acre-feet~~180,500 acre-feet, with 8,500 acre-feet in the Arroyo Grande-Tri-Cities Mesa area.~~ ~~The 1986 DWR report identified the Arroyo Grande-Tri-Cities Mesa and Nipomo Mesa basins as possibly being over drafted, however no detailed study was conducted.~~

Replenishment: The chief sources of groundwater replenishment for the basin are urban and agricultural runoff, and precipitation. Periodic releases from the Lopez Reservoir totaling 4,200 acre-feet per year also contribute to the basin water table. The Arroyo Grande-Tri-Cities Mesa subbasin is recharged at an estimated average rate of 5,700 acre-feet per year; 1,300 acre-feet of which are agricultural return. The City has also constructed a ground water recharge basin with a 30 acre-foot capacity.

Groundwater Quality: The groundwater of the shallow Paso Robles Formation aquifer of the Arroyo Grande-Tri-Cities Mesa subbasin is not of the best quality. Nitrate levels fluctuate between about 25 milligrams per liter and 125 milligrams per liter. The maximum nitrate level recommended by the State Health Department is a concentration of only 45 milligrams per liter. During 1988 - 1989 the City constructed an ion exchange water treatment plant designed to remove nitrates from groundwater produced from shallow wells. Concentrations of total dissolved solids (TDS) are also found to be high in this basin water, although TDS concentrations have declined as the result of periodic basin recharge with purer Lopez Reservoir waters. The City's deep well within the Careaga Formation has produced water of a higher quality, however, water from this well approaches State limits for iron and manganese levels. Testing of Grover Beach wells indicate that no volatile organics (manmade chemicals) or perchloroethylene (PCE's) are present in the groundwater (1992 Water Report).

Groundwater Extraction: [The Santa Maria Valley Groundwater basin underlies the Arroyo Grande-Tri-Cities Mesa groundwater subbasin from which the City of Grover Beach derives its groundwater supply. As a result of litigation which began in 2005 involving nearly every agency and private landowner in the Santa Maria basin, entitlements to groundwater in the Arroyo Grande-Tri-Cities Mesa groundwater subbasin are now controlled by the Court's final judgement. In accordance with the Court's final judgement, the City has an entitlement to 1,407 acre-feet of groundwater per year from the Arroyo Grande-Tri-Cities Mesa groundwater subbasin. Groundwater is supplied to the water distribution system via four municipal wells.](#)

~~The City extracted approximately 860 acre-feet from the groundwater basin in 1994. In 1983, Grover Beach agreed to limit its extraction of groundwater to 1,198 acre-feet per year. The 1983 "gentleman's agreement" was based upon the 1979 DWR report. Efforts are underway to update this report. As irrigated farmland is converted to urban uses, it is the City's policy that the groundwater previously used for agricultural purposes will be available for urban uses.~~

B. LOPEZ RESERVOIR SUPPLY

Service Area: The Lopez Reservoir project, completed in 1970, has a potential service-area of approximately 12,460 acres overlying the Arroyo Grande groundwater basin. This service area has been designated as Zone 3 of the San Luis Obispo County Flood Control and Conservation District. It is estimated that the reservoir presently serves a population of 24,610.

Storage Capacity: The Lopez Reservoir has a storage capacity of 51,800 acre-feet. The reservoir's dependable annual yield is approximately 8,73200 acre-feet.

In 1969 the City of Grover Beach contracted with the County for an annual entitlement of up to 800 acre-feet. Water supplied by the Lopez Reservoir can be provided to the City at a peak flow rate of 1.8 times the average daily rate, which is presently 717,000

gallons per day. The remainder of the safe yield is contracted to the cities of Arroyo Grande, ~~and Pismo Beach,~~ Oceano CSD, County Service Area 12 (Avila Beach and Port San Luis) ~~and County areas.~~

Lopez Water Quality: Lopez water is superior in quality to that of the Arroyo Grande-Tri-Cities Mesa subbasin. Total dissolved solids concentration is approximately 330 mg/L. Nitrates are found in trace amounts (0.25 mg/L) (DWR, 1986).

Lopez Water Consumption: In the past three years deliveries of water from Lopez Reservoir to Grover Beach have reached or exceeded the City's maximum annual entitlement of 800 acre-feet. As in each of these years, surpluses have been declared at Lopez and sold at reduced rates.

6.2.2 DELIVERY SYSTEM

A. DISTRIBUTION AND STORAGE

The City uses its shallow wells to produce water straight into the water mains after passing through the ion exchange water treatment plant and a chlorination station. Water from the groundwater basin and from the Lopez Reservoir is stored in three 1.5 million gallon reservoirs with a total capacity of 4.5 million gallons. ~~Two 200,000 gallon tanks and a booster pressure system serve the higher elevations.~~

~~The two smaller tanks and the booster pressure system, fed by the larger reservoirs, supply water to the higher elevations while the larger reservoirs supply the remainder of the City directly.~~

The water distribution system consists of a network of 50 miles of mains up to 16 inches in diameter.

B. SERVICE CONNECTIONS

The City's water system now serves all land uses within the City, with the exception of agricultural activities, the Pismo State Beach Golf Course, recreational fields at Grover Beach Elementary School and a small number of residential developments which are supplied by private wells. ~~As of 1996, the following numbers and types of land uses are provided with active City water service.~~

TABLE 1

Water Supply Service (1996)

Land-Use	Number of Units Served in City
Residential	3733
Commercial	313
Industrial	25
Public Authority	29

6.2.3 EXISTING CAPACITY

The City's deep well, because of its higher quality water, can provide a safe annual yield of ~~1407~~~~between 1700 and 1800~~ acre-feet per year. With the 800 acre-feet of water provided by the Lopez Reservoir, the City's total water supply capacity is ~~2207~~~~between 2500 and 2600~~ acre-feet per year, ~~an amount adequate for an ultimate population of 15,000~~~~between 14,700 and 15,300 (2010 Land Use Element CDM, 1978).~~

The ability to deliver the City's water supply to existing and future developments is affected by the capacity of the City's water distribution system which consists of the Lopez Waterline turnout, the municipal well pumps, the pressure boosting station, the water treatment system and the network of water mains.

Lopez Waterline Turnout

The Lopez Turnout has an existing capacity to provide approximately 804 AFY from the Lopez Reservoir which exceeds the City's 800 AFY allocation.

Well Pumps

The capacity of each of the City's well pumps are as follows: Well #1 - .79 MGD; Well #2 - .86 MGD; Well #3 – 1.79 MGD; Well #4 – 1.17 MGD. Groundwater from Wells #1 and #2 requires treatment but their production capacity is matched to the capacity of the treatment system which is 1.66 MGD. The City primarily operates Wells #1 and #4 full time to meet current water demands. Well #2 is operated occasionally during extended periods of peak demand. Well #3 is a used as a backup well in case of failure of one of the other well pumps. Together, the pumping capacity of the four wells greatly exceeds the City's groundwater allocation.

Pressure Boosting Stations

The City's pressure boosting station provides water to a section of the City outside of the Coastal Zone that is already built out. The capacity of the boosting station does not affect the capacity of the water system in the Coastal Zone.

Treatment System

The City's water treatment system is capable of meeting all current water quality requirements with an output capacity of 1.66 MGD. This capacity matches that of the two wells that require treatment. As such it is not a limiting factor in the production of groundwater.

Water Mains

The City's water mains are the primary limiting factor in delivering water to all areas of the City. Capacity of the water mains can be measured by the system's ability to provide adequate pressure at reasonable velocities during all demand scenarios.

In 2005 a hydraulic model of the City's water distribution system was developed to study the capacity of the system under projected demands at build-out. Based on the results, the City's Water Master Plan identified deficiencies in the size of water mains located throughout the City.

Build out demand scenarios that were contemplated include maximum daily demand, extended peak hour demand, short-term peak hour demand, maximum day demand and a combination of peak daily domestic demand and fire hydrant flow. The peak daily demand combined with fire hydrant flow scenario turned out to be the controlling demand scenario.

Water main Deficiencies within the Coastal Zone boundary can be divided into three categories:

1. Fire hydrant flow deficiencies along Front Street north of Ramona Avenue due to undersized trunk mains; 2. Low domestic water pressure to existing residences north of Ramona Avenue and east of Front Street during fire flow scenarios on Front Street due to existing 2" and 4" waterlines that serve the existing residential developments in the area; and, 3. New waterlines needed to serve future developments west of State Highway 1.

~~In 1990, the City began implementation of a retrofit program to promote water conservation. Developers of new residential units pay a fee into a fund for the retrofit installation of water conservation devices in existing structures. The fee amount allows for five residences to be retrofitted for each residential unit permitted to be built.~~

6.2.4 EXISTING DEMAND

~~The City annual water demand in 2009 was 1,940 AFY. The 2009 maximum daily demand was 2.60 MGD. The City's water supply and distribution system can supply adequate volume to all existing service connections in the City. As identified previously, water system improvements are needed in order to provide adequate pressure and acceptable velocities in the system during a combination of peak daily domestic demand and fire flow demand. In From an analysis of the 1978 demand for water by CDM, it is evident that the largest share of the City's water is demanded by residential uses, both in the City as a whole and within the boundaries of the Coastal Zone. It should be noted, however, that an estimated 3 percent of the City's single-family homes, 7 percent of its multi-plex units and over 60 percent of its mobilehomes are used only seasonally as vacation homes. The number of vacation homes within the City's portion of the Coastal Zone is not known at this time but is probably disproportionately high. For example, approximately 42, or 70 percent, of the 60 mobilehome units located in the mobilehome park west of Highway 1 are used as vacation residences.~~

~~A disproportionately large percentage of the City's industrial demand for water is generated by industrial uses within Coastal Zone boundaries. None of the industrial uses located within the City's portion of the Coastal Zone are coastal-dependent industries.~~

~~Agricultural uses within City boundaries, as mentioned, are supplied with water drawn directly from the groundwater basin by private wells. It is estimated that the total agricultural demand for water is 288 acre-feet per year, making the total City demand upon the groundwater basin approximately 1,148 acre-feet per year. The limited agricultural activity within the City's portion of the Coastal Zone uses about 0.7 percent or 2.1 acre-feet of the total annual agricultural demand. 2009 as shown in the Table below.~~

~~INSERT WATER DEMAND TABLE FOR 1992-2009~~

6.2.5 POTENTIAL DEMAND

~~The City is projected to have a build-out population of 15,000 in 2030 (2010 Land Use Element).~~

~~In 1990, the City began implementation of a retrofit program to promote water conservation. Developers of new residential units pay a fee into a fund for the retrofit installation of water conservation devices in existing structures. The fee amount allows for five residences to be retrofitted for each residential unit permitted to be built.~~

In 2009 the State passed Senate Bill 7 that requires the City to implement a 20 percent reduction in water usage by 2020.

The projected water demand based on existing per-capita water use and implementation of Senate Bill 7 is with demand for XXXX 1,892 AFY. Based on the City's current supply of 2,207 AFY, the City's has adequate water resources to meet the projected build-out population for all areas of the City, including the Coastal Zone.:

Although the City's water resources are adequate to serve the projected build-out population of the City including all permitted uses within the Coastal Zone, the City's Urban Water Management Plan identifies water shortage stages of action that are to be implemented if a water shortage is ever realized. The stages of action include voluntary and mandatory water consumption reduction measures. In addition, the City of Grover Beach continues to investigate opportunities to procure additional allocations from existing sources and to investigate opportunities to secure new sources of water in an effort to provide greater supply reliability.

However, the City will continue to implement water conservation programs which have shown to be effective based on the per capita use declines. In addition, the City will continue to implement water policies contained in the City's Water Master Plan and Urban Water Management Plan including infrastructure improvements which should improve efficiency and reduce water demand. In addition, the City is investigating alternative water resources to provide a larger buffer to insure that projected future water supply is adequate to meet build-out. Projected demands for City-supplied water are based on build-out capacity requirements of existing land use plan and zoning designations. The data indicate that there is potential for a significant increase in industrial demand for water within the City's portion of the Coastal Zone. Conversely, the proportion of the Coastal Zone demand represented by residential uses is expected to decline because a relatively small amount of land within the Coastal Zone is designated for residential uses. A large number of existing residences here were constructed prior to enactment of the City's zoning ordinance in 1973 and are located in areas now designated for non-residential uses. Recreational and general commercial demands upon the City's water supply are expected to remain fairly constant. A large share of the City's total recreational demand for water will continue to be generated by uses within the Coastal Zone, primarily due to the large amounts of water used to irrigate the public golf course.

Agricultural demand upon groundwater within the City is expected to decline steadily until it ultimately represents an insignificant percentage of total groundwater consumption. Within Coastal Zone boundaries it is anticipated that the agricultural demand for water will be phased out entirely within the next 10 years as existing uses are replaced by low-density residential or industrial development.

6.3 SEWER SERVICE

The sewer system which presently serves Grover Beach carries City wastewater to a treatment plant located to the south in the unincorporated community of Oceano. This treatment plant was placed in operation in 1966. Prior to that time the City had no public sewer system and all developments were served by septic tanks. The treatment plant is operated by the South San Luis Obispo County Sanitation District which was formed prior to construction of the plant. The District is comprised of three member jurisdictions, the Cities of Arroyo Grande and Grover Beach and the unincorporated community of Oceano. Prior to joining the District in 1996, Grover Beach contracted for 1.5 million gallons per day (mgd) of wastewater treatment.

6.3.1 SEWER SERVICE SYSTEM

The existing sewer system which transports wastewater from Grover Beach to the treatment plant serves nearly all development within the City. ~~The numbers and types of units served are similar to those supplied with City water, although, with the exception of~~ a small number of residential and commercial uses which ~~receive City water,~~ rely on septic tanks for wastewater disposal. ~~The table below presents the numbers and types of uses served by the City's sewer system in 1996.~~

~~TABLE 2
Sewer Service (1996)~~

Land Use	Number of Units (City)
Residential	3,689
Commercial	213
Industrial	40
Other	35

Wastewater from these developments is carried in pipes ~~of vitrified clay~~ ranging from 6 inches to 15 inches in diameter. A 48-mile trunk interceptor sewer system of pipes ranging from 18 inches to 24 inches in diameter conveys collected wastewater to the treatment plan in Oceano.

The City operates three sewer pumping stations located at Front Street, Nacimiento Lane and Oak Park Boulevard. These pumping stations collect sewage and convey it to locations in the system that can gravity flow to the District treatment plant. In addition to the City's pumping stations there are several private pumping stations that convey sewage to the City's collection system.

~~The City's Facilities Resource Study (GDM, 1978) indicates that the existing system is in excellent condition. Service expansion is planned to include 32 acres in the southern portion of the City, some of which is in the Coastal Zone. Development in this area is served by septic tanks.~~

6.3.2 SEWER CAPACITY

A. DISTRICT

The existing District treatment plant was constructed in 1965 with 2.5 mgd capacity. In 1980, the treatment plant was upgraded and a new ocean outfall line installed. Capacity of the plant was increased in 1982 to 2.7 mgd and in 1983 to 3.3 mgd. In 1992, the plan expanded to 5.0 mgd. The treatment plant was originally designed to facilitate expansion, in stages, to an ultimate capacity of 10 MGD. The City of Grover Beach has a contractual obligation with the District for 1.5 million gallons per day (MGD) of wastewater treatment.

B. SEWER SERVICE SYSTEM

The City of Grover Beach 2006 Sewer Master Plan provides an evaluation of the existing capacity of the City's sewer mains. Capacity was evaluated during peak wet-weather flows. Under current conditions, the Master Plan identifies several locations where the depth of flow in the mains exceeds industry recommendations. These are identified as surcharge locations. Although surcharge conditions exist, there are no locations where sewer flows are expected to overflow the system resulting in spills.

The City's Front Street sewer pumping station serves properties located in the Coastal Zone near Front Street. The lift station has a pumping capacity of 120 gpm (gallons per minute) in each of two pumps.

~~B. CITY~~

~~As of January 1996, the City was using approximately 64 percent of its 1.5 mgd capacity~~

6.3.3 PRESENT DEMAND

~~As of 2009, the City was using approximately XX percent of its 1.5 mgd capacity as shown in the Table below.~~

~~As in the case of water consumption, the demand for sewer service is generated primarily by residential uses both Citywide and within the Coastal Zone. Sewer demands generated by recreational, general commercial, and industrial uses also follow the pattern seen in water consumption. Nearly the entire City recreational demand for sewer service is generated by uses within the Coastal Zone. The City's industrial demand for sewer service also originates largely within Coastal Zone boundaries, although as noted earlier, none of the present industrial developments are coastal dependent.~~

~~INSERT TABLE~~The estimated 2010 sewer flows are approximately 1.06 MGD average. For use in evaluating pipe capacity and sewer pumping capacity a peaking factor was applied to obtain a flow of 3.18 MGD at the peak demand.

6.3.4 POTENTIAL DEMAND

~~The City is projected to have a build-out population of 15,000 in 2030 (2010 Land Use Element) with a sewer demand for XXX mgd. The estimated average sewer flow at build-out is 1.30 MGD. Based on the City's current supply contract with the District for of treatment of 1.5 MGD, mgd, the City's has adequate wastewater treatment capacity to meet the projected build-out population for all areas of the City, including the Coastal Zone.~~

~~However, if projected wastewater demand exceeded 80% of the wastewater treatment facility's capacity, the South San Luis Obispo County Sanitation District would be obligated to start planning for plant expansion. If the wastewater treatment plant capacity reached 90% of capacity, the Sanitation District would be required to expand the facility which has an ultimate capacity of 10 mgd.~~

The City of Grover Beach 2006 Sewer Master Plan provides an evaluation of the capacity of the City's sewer mains at build-out. Based on an applied peaking factor, the estimated peak flow rate is 3.90 MGD. In 2008, the City constructed all of the improvements identified in the Master Plan. The Master Plan identifies remaining surcharge conditions expected to exist in sewer mains at build-out sewer volumes in several locations throughout the City. Although the

surcharge conditions are not desirable, no sewer system overflows are expected. As a result there are no additional sewer main system improvements proposed. The estimated capacity of the sewer main system is sufficient to carry the expected peak wet-weather flows at build-out as identified and defined in the City's General Plan, Zoning Code and Local Coastal Plan.

At build-out the estimated peak wet-weather flow tributary to the Front Street pumping station is estimated to be 42 gpm. The existing pump station capacity is sufficient to serve the properties tributary to the station at build-out.

~~The assumptions to be made based upon the projections for sewer service demands are similar to those relating to projected water demands. Residential use within the Coastal Zone will continue to demand the greatest percentage of total sewer service for the Coastal Zone, although it will generate a slightly lower percentage of the total than does residential development City-wide. Industrial development will represent a slightly decreasing percentage of Coastal Zone demand. Uses within the Coastal Zone will ultimately generate about one-fourth of the City's total industrial demand if existing zoning designations are implemented.~~

~~Recreational demand for sewer service will continue to rise predominantly from uses within the Coastal Zone, although a slight decline in the percentage is anticipated as visitor-oriented uses are established throughout the City. Under existing land use and zoning designations, developments within the City's portion of the Coastal Zone will ultimately be responsible for approximately 13 percent of the City's total sewerage demand.~~

~~Existing plant facilities as noted, are designed so that its facilities may be doubled to a capacity of 5 MGD, and then, in the third phase of development, expanded to an ultimate capacity of 10 MGD.~~

~~Reclamation of wastewater effluent has been considered by the Sanitation District as a potential means of effluent disposal. In the District's Project Report and Environmental Impact Report, produced in 1976, this alternative to ocean disposal of wastewater was examined.~~

6.4 CIRCULATION

6.4.1 EXISTING SYSTEM

A. STREETS

Three major streets provide access to Grover Beach's portion of the Coastal Zone. These streets are described below:

North Fourth Street: This street functions as a minor arterial, providing an ingress-egress route serving Highway 101 and linking this State highway with Grand Avenue and Pismo State Beach. The northernmost portion of North Fourth Street is a winding two-lane street which bisects Pismo Lake, a large marsh. This portion of the street is paved to a width of only 56 feet of its 70-foot right-of-way and includes sidewalks and bike lane on each side of the street. South of Ocean View Avenue, North Fourth Street widens to 56 feet and provides two traffic lanes, one left-turn lane, and parking on both sides. Within the City of Pismo Beach, North Fourth Street has been paved to a width of 52 feet with two driving lanes, median, and two shoulder lanes.

North Fourth Street intersects Grand Avenue approximately one mile south of the Highway 101 exit. This intersection lies one half mile east of the Grand Avenue ramp

entrance to Pismo State Beach. Parking north of Ocean View Avenue on North Fourth Street is prohibited at all times.

Grand Avenue: Grand Avenue is primarily a commercial street. In addition to serving commercial needs, Grand Avenue provides access to Pismo State Beach for both local residents and out-of-the-area beach visitors. Within Grover Beach limits, two freeway exits are linked to Grand Avenue by local streets. One of these exits, at North Fourth Street, lies within the boundaries of the Coastal Zone.

Grand Avenue's right-of-way is 100 feet wide for its entire length. Between the City's eastern Coastal Zone boundary and Highway 1, Grand Avenue is paved and sidewalks are provided on both sides of the street. West of Highway 1, Grand Avenue is paved to a width of 45 feet and a sidewalk is provided along the northern side up to the vehicular ramp entrance to Pismo State Beach. On both sides of Grand Avenue, parallel parking is permitted. Some areas are limited to two hours while other areas allow 72-hour parking. This portion of Grand Avenue near the ramp entrance is often critically congested at peak use periods, particularly when high tides hinder access and egress of beach visitors in vehicles.

Highway 1: This State Highway, also called Pacific Coast Highway, serves primarily as a State, regional, and local coastal access route within Grover Beach limits. The land west of Highway 1 is largely within Pismo State Beach, although a mobilehome park fronting on the Highway and a vacant parcel just north of Grand Avenue are privately owned. Along the east side of Highway 1, north of Grand Avenue, lies the Southern Pacific Railroad easement. South of Grand Avenue, the railroad easement is separated from the Highway by a narrow strip of land. The southern portion of this strip is owned by the County and partially developed as a recreational vehicle storage area. The City owns the property at the southeast corner of Grand Avenue and Highway 1 where the multimodal transportation facility is located. Grand Avenue is the only inland street within City boundaries which intersects Highway 1. Parking is not permitted at any time on Highway 1 within Grover Beach. Emergency parking is possible on some portions of the west shoulder of the Highway, both north and south of Grand Avenue, but is difficult and dangerous during peak use periods when the Highway is used.

B. ADDITIONAL PARKING FACILITIES

Off-street parking within the City's portion of the Coastal Zone includes free public parking for visitors to Pismo State Beach and the LeSage Golf Course west of Highway 1. These parking areas are paved and provide space for about 163 cars and are used in an average day at about half their capacity. During peak use periods, however, which usually occur in the summer months, the parking lots are often used at capacity.

Pismo State Beach itself presently provides parking space for both local and out-of-the-area beach visitors. At low tides the beach within Grover Beach has a capacity adequate for approximately 100 moving or stationary vehicles per hour. This capacity is frequently exceeded during peak use periods, particularly at high tides.

C. SOUTH COUNTY AREA TRANSIT (SCAT)

The South County communities, of which Grover Beach is one, are in the nineteenth year of a subregional fixed route transit system which serves area residents. As of January 1997, service is offered five days per week and utilizes four buses. The average ridership per day is about 360. During the summer months, daily ridership levels often are higher, largely due to greater

use of the system by younger residents as a means of transportation to the beach. Over the next 20 years a 27% increase in ridership is forecasted.

D. MULTIMODAL TRANSPORTATION FACILITY

In November 1996, the Grover Beach Multimodal Transportation Facility was opened at the southeast corner of Grand Avenue and Highway 1. This facility includes an unmanned Amtrak station with train and bus service to destinations such as San Diego and Sacramento. Eventually the SCAT transfer station will be moved to this location from the Ramona Gardens Park.

6.5 IMPACTS ON PUBLIC SERVICE DEMANDS

The data on projected demands for water, sewer, and circulation services presented in the preceding pages are based upon present commitments to development as shown in the City's Zoning Map and Land Use Plan. However, in order to implement the policies of this document, some of the designations presently applied to areas within the Coastal Zone will have to be altered. These alterations will change the City's present commitment to development and so affect the distribution and level of public service demands generated by land uses within the Coastal Zone in the future. Probable changes in future public service demands which will result from changes in land use designations are addressed below.

6.5.1 RECREATION

Within Grover Beach's portion of the Coastal Zone, implementation recommendations concerning access and recreation will alter future land use patterns and projected public service demands. These land recommendations and their expected impacts on water, sewer and circulation demands within the Coastal Zone are discussed below:

1. Improved access to the beach: Several recommendations would result in easier access to the beach in the future. Recommendations relating to improved access are, in general, oriented toward day use and non-vehicular beach use. Improved pedestrian access to the beach will result in increases in the frequency and turnover rates of local beach use, and in corresponding increases in the demand for public services, particularly off-beach parking and restrooms. Increases in beach use frequency and turnover rates associated with greater local pedestrian use will probably have a more significant impact upon average daily service demands than on peak service demands in the Coastal Zone.
2. Additional recreational facilities: The development of recommended recreational facilities at Pismo State Beach within Grover Beach will increase demands for public support facilities to some extent. The additional opportunities for beach day use activities will also increase the future demand upon private commercial services, particularly restaurants and other food-related businesses. Impacts of this type will probably be significant during peak recreational periods.
3. Private recreation and visitor-oriented facilities: The proposed Visitor Services land use designation will probably result in a greater number of visitor-oriented, commercial land uses within the Coastal Zone. Public service demands by such uses will tend to reflect the public beach use patterns, i.e., there will be a substantial difference between average daily demands and peak period demands. Food service and transient lodging

uses in particular are subject to such wide variations. Near the public beach such businesses may have a peak use factor as great as Item 3.

6.5.2 RESIDENTIAL

The Coastal Act gives low priority to residential development within the Coastal Zone. Grover Beach's portion of the Coastal Zone contains a substantial amount of low and moderate cost housing comprised mainly of small, older single-family homes. To protect this existing housing stock from economic forces which will hasten its demolition and replacement with new, more expensive housing, specific criteria must be met before a demolition permit is issued. See the Housing Element of the City's General Plan for further information. Densities in all residential land use categories were reduced in 1991 by 15 to 45%. A general reduction in the number of future dwelling units within the Coastal Zone boundaries will occur.

A. WATER AND SEWER

The overall impact of these changes in residential land use commitments within the Coastal Zone on water and sewer needs will be a reduction in the ultimate potential demands generated by residential uses.

B. CIRCULATION

The changes in the City's commitment to coastal residential development will also result in a reduction in the residential demand upon the City's circulation system. Reduction in future average daily traffic flows will be most significant on North Fourth Street and on Grand Avenue, the two coastal access routes which serve the largest amounts of commuter and local traffic. Because residential development in Grover Beach contributes a greater share of traffic to average daily flows than to peak flows, which are usually recreation-oriented, reductions in coastal residential commitments will have a greater impact on average daily traffic than on peak hour traffic demands.

C. PARKING

Because off-street parking facilities associated with coastal access routes are in demand primarily during peak recreational periods, and because residential development must, by City ordinance, be provided with substantial private off-street parking space, a reduced residential commitment is not expected to significantly alter projected demands for public parking in the City's portion of the Coastal Zone.

6.5.3 COMMERCIAL

The Coastal Act gives very high priority to commercial land uses which are recreation-related and/or visitor-serving (Coastal Act, Section 30222). Within Grover Beach's portion of the Coastal Zone, no suitable areas are specifically committed to recreational and visitor-serving uses at this time. However, several areas previously designated as "highway-commercial" districts permit recreation and visitor-oriented as well as general commercial development. In compliance with Coastal Act policy, these areas are being designated for recreation and visitor-oriented uses only. This designation may not affect the annual amount of the commercial demand for public services, but will alter the pattern of that demand. General commercial development generates only moderate peak period and peak day demands for services, while recreation and visitor-oriented commercial uses generate relatively high peak period and peak day demands.

The impacts of the expected increase in future recreation-related commercial demands resulting from implementation of these policies were considered in developing the projections for recreational demands which were presented earlier.

A. PARKING

The potential general commercial demand for public parking facilities within the City's portion of the Coastal Zone will be decreased through implementation of this document's policies, although the demand generated by recreation-related commercial developments will be greater. As the result of this change in the type of commercial demand which will predominate in the future, peak period parking needs will be increased, particularly on Grand Avenue where the greatest potential for high-turnover, recreation-related commercial activities exists.

6.5.4 INDUSTRIAL

Coastal-dependent industrial uses are given high priority in the Coastal Act. However, within Grover Beach's Coastal Zone, the entire coastline is owned by the State of California and its primary use is recreational. This makes the major portion of the Coastal Zone area unavailable for coastal-dependent industries.

A. WATER AND SEWER

There will be no change in the ultimate and potential demand for water and sewer needs for areas designated for industrial land uses within the Coastal Zone.

B. CIRCULATION

Under the existing industrial commitment, industrial development in the Coastal Zone will not contribute a significant amount of traffic to coastal access routes due primarily to the relatively small amount of employment which industrial uses permitted in Grover Beach generate. Parking needs generated by industrial uses must be met on-site under the City's present zoning ordinance so that a reduction in the Coastal Zone commitment to industrial development will not have a significant impact upon public parking demands.

6.6 SUMMARY

6.6.1 WATER SUPPLY

1. Grover Beach has the capacity to provide ~~2,207~~~~2,500 to 2,600~~ acre-feet of domestic water per year to serve the City, including the area within the Coastal Zone.
2. As of ~~2009~~~~1996~~ the City uses approximately ~~4500~~~~1940~~ acre-feet of domestic water per year, or about ~~88~~~~58~~ percent of its present yearly capacity.
3. ~~Approximately 288 acre-feet per year of groundwater are drawn directly from the groundwater basin for agricultural uses within the City. Agricultural uses within the City's portion of the Coastal Zone draw approximately 2.1 acre-feet of groundwater directly from the groundwater basin per year.~~

- ~~4. Of the total City-wide demand for water, 8 percent of the demand is contributed by general commercial uses, 90 percent by residential uses, and 1 percent by industrial uses. Under existing development commitments of the City's land use plan and zoning ordinance, the percentages of total city demand generated by residential, general commercial, and industrial uses will remain relatively stable. The City has adequate water resources to serve the projected build-out population of 15,000 in 2030.~~
- ~~4. The City shall continue to implement water conservation programs including the SB-XXX which requires a 20% reduction in water usage by 2020. Water Master Plan has identified deficiencies in the size of existing waterlines that serve existing and future developments in the Coastal Zone.~~
- ~~5. The City has adopted an Urban Water Management Plan that identifies consumption reduction measures to be implemented if the City ever experiences a water supply shortage. shall continue to investigate alternative water sources to provide additional buffer to the City's water supply at build-out.~~
- ~~5. Within the City's portion of the Coastal Zone, the distribution of water demand under existing commitments may be expected to follow a pattern similar to that of the City as a whole. However, the coastal industrial demand for water will ultimately represent a much smaller percentage of total industrial demand as industrial land beyond Coastal Zone boundaries is developed.~~

6.6.2 SEWER SERVICE

- ~~1. 4. As a member of the South San Luis Obispo County Sanitation District (SSLOCSD), Grover Beach is presently entitled to approximately 1.5 million gallons per day (MGD) of the treatment plant's 5 MGD average daily capacity.~~
- ~~2. As of 2009 the City uses approximately XXX mgd. The estimated average flow rate in 2010 is 1.30 MGD, or about 87XX percent of the District's allocated its present yearly capacity daily treatment capacity.~~
- ~~3. The City has adequate wastewater treatment capacity to serve the projected build-out population of 15,000 in 2030.~~
- ~~4. The City's existing sewer service system has adequate capacity to serve all existing and proposed development in the City including future development in the Coastal Zone.~~
- ~~2. Because over 60 percent of the City's total daily sewerage flow is composed of domestic water, the present distribution of the City's demand for sewer service is similar to that of the domestic water demand. Recreational demand, however, is somewhat lower for sewer service than for water because approximately 21,800 gallons of domestic water per day are used to irrigate a public golf course and percolate directly into the ground or are lost as runoff rather than entering the City's sewer system.~~
- ~~3. The present demand for sewer service by uses within the Coastal Zone follows a pattern similar to the City-wide demand. However, because the beach within the City's portion of the Coastal Zone is the destination of most of the City's recreational users, approximately 97 percent of the City's total recreational demand is generated by uses within the Coastal Zone. Contributing to this demand are both public and private commercial recreation-related uses and a large number of vacation and seasonally occupied "second homes". Due largely to the amount of recreational activity occurring on or near the beach during peak recreational periods, a significant percentage of the City's total peak flow is generated by Coastal Zone uses.~~

- ~~4. Under existing City land use designations, the percentage of the total City demand generated by Coastal Zone uses can be expected to decline as land beyond Coastal Zone boundaries is developed. For most types of use this decline will be small and gradual. However, the industrial sewer service demand within the Coastal Zone is expected to drop from over 90 percent of the total industrial demand at present to only a fourth of this demand as large amounts of industrial land east of the coastal industrial area are developed.~~

6.6.3 CIRCULATION

1. The three major coastal access routes presently serving Grover Beach's portion of the Coastal Zone are North Fourth Street, Grand Avenue, and State Highway 1.
2. Peak use of North Fourth Street south of Ocean View Avenue occurs at about 89 percent of its design capacity. South of Manhattan Avenue, South Fourth Street peak traffic flows represent 43 percent of the design capacity.
3. On Grand Avenue west of Fourth Street peak traffic flows presently occur at 35 percent of the street's design capacity.
4. Highway 1 north of Grand Avenue carries a peak traffic flow of 83 percent of its design capacity and south of Grand Avenue, only 50 percent of its capacity.
5. The distribution of average and peak demands among recreational, residential, commercial, and industrial uses differs slightly for each of the three coastal access routes. However, recreational demand at peak periods is high on all parts of the three coastal access routes. Neither local or commuter traffic competes heavily with recreational demand at peak use periods.
6. On-street, free public parking is permitted south of Ocean View Avenue on North Fourth Street, and on Grand Avenue to within 680 feet of the end of the street. This area experiences significant congestion during peak use periods. No parking is permitted on Highway 1 within the City limits.
7. Traffic on Grand Avenue is not expected to exceed design capacities, during peak use periods, at City ~~buildout~~build-out.
8. North Fourth Street may experience significant peak hour congestion by City ~~buildout~~build-out, however the recently completed widening project will allow for future striping of four traffic lanes, if warranted.
9. Traffic on Highway 1 north of Grand Avenue, is also expected to exceed design capacities, during peak use periods, at City ~~buildout~~build-out. The State Department of Transportation has previously proposed to widen portions of the Highway to provide emergency parking and to increase pedestrian and cyclist safety.

6.6.4 IMPACTS ON PUBLIC SERVICE DEMANDS

The most significant impact will be a proportionate reduction in the potential residential demand for services, and an increase in the demand generated by recreation-oriented, private commercial activity. These alterations may result in a slightly lower average daily demand and in a higher peak period demand than would be expected under existing land use commitments.

6.7 RECOMMENDATIONS

6.7.1 WATER SUPPLY

1. ~~4.~~Policy: City shall continue to implement the water policies contained in the City's Water Master Plan and Urban Water Management Plan to insure that the City has adequate water supplies to serve the projected 15,000 population at build-out in 2030 as identified and defined in the City's General Plan, Zoning Code and Local Coastal Plan.
2. ~~Policy: —The water supply shall be adequate to serve the entire City including the Coastal Zone.~~ The City shall continue to implement water conservation programs which have shown to be effective based on the per capita use declines. The City shall continue to implement water policies contained in the City's Water Master Plan and Urban Water Management Plan including infrastructure improvements designed to provide adequate pressure at acceptable velocities during all demand scenarios.
3. ~~Policy: The City shall continue to investigate opportunities to procure additional allocations from existing supplies and shall continue to investigate opportunities to secure new water supply sources in order to provide greater supply reliability.~~
4. ~~Policy: The City shall condition all new developments to install new water infrastructure designed to provide adequate pressure at acceptable velocities for the proposed use unless adequate mains already exist or the City has adopted a development impact fee for installation of the water infrastructure needed to supply the proposed development in which case the applicant shall be required to pay the adopted fee.~~
1. ~~5.~~Policy: ~~—The ability of the City's wells to produce high-quality water shall be fully utilized in order to reduce reliance upon Lopez Reservoir.~~
2. ~~—~~
3. ~~2.~~Policy: Development throughout the City shall be phased and planned so that at least 20 percent of the City's total annual water supply capacity is reserved and available to new and existing land uses within the City's portion of the Coastal Zone. In compliance with Section 30254 of the Coastal Act, proposed new development within the Coastal Zone that provides essential public services; basic industries vital to the economic health of the region, state, or nation; public recreation; commercial recreation, and visitor-serving land uses shall be given priority over other new proposed developments in the Coastal Zone in the event that existing or planned public works facilities serving the Coastal Zone can accommodate only limited amounts of new development. the City shall insure that coastal dependent uses such as visitor serving are not precluded by other development within the City. In order to accommodate the allocation for the Coastal Zone area of the City is adequate. following annual allocations of the Coastal Zone share of the City water capacity shall be made:

~~Recreation-oriented uses: —17 percent of Coastal Zone capacity~~
~~General Commercial uses: —1 percent of Coastal Zone capacity~~
~~Residential uses: —80 percent of Coastal Zone capacity~~
~~Industrial uses: —2 percent of Coastal Zone capacity~~

6.7.2 SEWER SERVICE

1. Policy: Recycling of treated wastewater as an alternative to ocean disposal of all effluent treated in the treatment plant shall be strongly supported and encouraged by the City when reclamation is economically feasible.
2. ~~2.~~ Policy: New developments shall be conditioned to evaluate the project's sewer flows and to provide upgrades to existing sewer service systems when needed or, where no sewer service system exists to serve the proposed development, shall be conditioned to install new sewer service systems unless the City has adopted a development impact fee for the proposed system in which case the applicant shall be required to pay the adopted fee.
3. Policy: In compliance with Section 30254 of the Coastal Act, proposed new development within the Coastal Zone that provides essential public services; basic industries vital to the economic health of the region, state, or nation; public recreation; commercial recreation, and visitor-serving land uses shall be given priority over other new proposed developments in the Coastal Zone in the event that existing or planned public works facilities serving the Coastal Zone can accommodate only limited amounts of new development. Development throughout the City shall be phased and planned so that at least 20 percent of the City's total average daily sewer treatment capacity and 20 percent of the City's total peak flow capacity are available to new and existing land uses within the Coastal Zone. Of these amounts, the following allocations of average daily and peak flow capacities shall be made:

<u>Use</u>	<u>Average Daily</u>	<u>Peak Flow</u>
<u>Recreation-oriented</u>	<u>10 percent</u>	<u>12 percent</u>
<u>General Commercial</u>	<u>2 percent</u>	<u>1 percent</u>
<u>Residential</u>	<u>83 percent</u>	<u>83 percent</u>
<u>Industrial</u>	<u>5 percent</u>	<u>4 percent</u>

6.7.3 CIRCULATION

1. *Action: It is proposed that North Fourth Street from Ocean View to the City's northerly City limits be widened to a paved section of fifty-six (56) feet. This street section will provide for four driving lanes, two bike lanes, and emergency parking. The City will provide cooperative efforts with the California Department of Fish and Game to insure an environmentally sound construction project. Future street striping will be coordinated with the City of Pismo Beach to insure traffic safety.*
2. *Action: In cooperation with the California Department of Transportation, Transportation Management Strategies recommended by the State for Grand Avenue should be implemented to reduce present and future conflicts between design capacity and peak use demand on this street.*

3. Policy: Highway 1, both north and south of Grand Avenue, should be retained permanently as a two-lane highway, although minor improvements necessary for purposes of public safety or for provision of bicycle and pedestrian paths should be permitted.

6.7.4 GENERAL

1. *Action: The City shall develop and adopt standards which indicate a probable range of public service demands generated by the types of uses permitted within the City's portion of the Coastal Zone. These standards shall be used to evaluate specific projects within Coastal Zone boundaries in order to ensure that the percentage allocations to Coastal Zone land uses are not exceeded.*

2. *Action: The City should adopt by reference the State Coastal Commission's interpretive guidelines on exclusion of permit requirements. These guidelines apply only to exclusions established in Section 30610 of the Public Resources Code. NOTE: The adoption of these guidelines by reference does not exclude any public or private party from obtaining the required encroachment permits, but only excludes the requirement for coastal permits. Copies of said interpretive guidelines for said exclusion permits are on file in the Planning Department of the City of Grover Beach.*