7.5 PUBLIC FACILITIES

7.5.1 Introduction

This Element addresses those public facilities not discussed elsewhere in the Plan but that have a bearing on land use matters. This includes wastewater treatment, solid waste disposal, community recreation, and schools. Fire and sheriff protection are discussed in a separate element in the Public Safety section since they are concerned with public safety. Circulation is also treated as a separate element due to the complexity of that topic. Water supply and water quality are discussed in the Water Resources Element.

Wastewater treatment and solid waste disposal are essential services required by all types and densities of development. Section 65302(d) of the Government Code requires preparation of an element for the conservation, development, and utilization of natural resources including water. This element must be developed in coordination with the countywide water agency and with all district and City agencies which have developed, served, controlled, or conserved water for any purpose. Under authority of Section 65303, a local government may prepare an element showing a general plan for sewage disposal. Finally, Section 65302(a) requires the designation of lands used for solid waste disposal facilities.

Community recreation and schools are public services which play major roles in determining the quality of life available in a community. Authority for these topics is provided by Government Code Section 65303.

7.5.2 Findings

Nature of the Water Supply/Wastewater Treatment

Water supply and wastewater treatment are concerned with the removal of water from its natural environment and its return to this environment after it has been used by man for a variety of purposes.

The Background Reports to the General Plan contain a comprehensive examination of the water and wastewater resources of Shasta County and their implications for future development. This study is based on the latest published literature and extensive communications with local authorities in these areas. Understanding the water supply and wastewater treatment opportunities and constraints operating in Shasta County is fundamental to understanding its future development potential. Major findings of this study are outlined below.

Wastewater Treatment

Wastewater may be treated and returned to the natural environment using one of several technical methods with either community or individual on-site disposal systems. The various combinations of technical methods and service systems and their pattern of use throughout the County are discussed below.

<u>On-Site Disposal Systems</u>

The simplest system is the individual on-site septic tank and leach field serving a single dwelling. The advantage of this on-site wastewater treatment system is its relatively low cost and its water recharge characteristics. Disadvantages relate to the narrow requirements of this system with respect to soil characteristics, topography, and the absence of seasonal or year-round high groundwater levels. Failure of a septic tank system is its major disadvantage because it may result in

contamination of groundwater or other health-related problems. Unless this failure is evidenced by odor, visual, or mechanical symptoms, it may go undetected indefinitely. With few exceptions these requirements severely limit their use in Shasta County in that it cannot be assumed that every lot in the County of any size will be able to support an on-site septic tank and leach field system. Generally, those areas of the County with the least constraints on the use of this system are located in the Sacramento Valley area and are most easily served by community sewer systems. Determining individual on-site sewage disposal suitability requires site-by-site investigation. In areas of seasonal high groundwater, the County's on-site sewage disposal rules may require that wet weather testing, mathematical modeling, or groundwater determinations show that necessary suitability exists during "normal" rainy season conditions to allow safe operation of septic systems.

Where opportunities to use conventional septic tank and leach field systems are limited, there may be interest in alternative or nonconventional on-site systems, including mound and aerobic systems. The use of nonconventional systems occurs most frequently where shallow groundwater or slow percolation rates are observed, and where alternative designs can assure maintaining public health and safety standards. Overall, the utilization of mound and aerobic systems has been very limited in Shasta County due to uncertain performance and difficulty in maintenance. Non-conventional systems cannot be used to meet land division criteria for septic systems, but are frequently used to provide sewage disposal for pre-existing small lots.

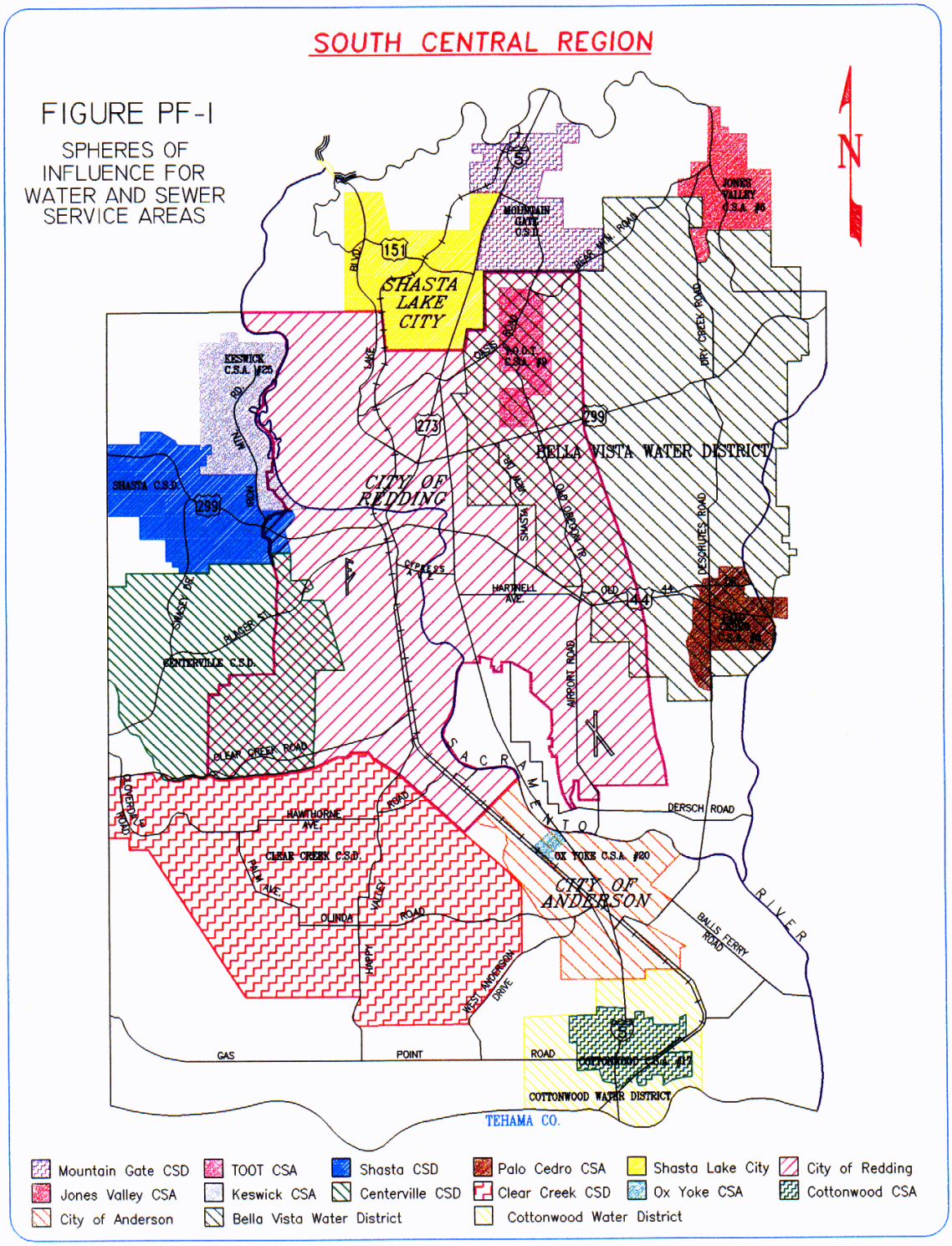
On-site wastewater capability is, like the availability of domestic water and sewer systems, an important part of the equation to determining the land capability and desirable development density in a given area. The septic suitability of various soil types in Shasta County varies tremendously due to varied terrain, precipitation, and other geographic factors. As a result, there is need to better correlate septic density as a component to the County's land capability analysis system which is discussed in the Community Development Element. For example, mapping of areas which exhibit seasonal high groundwater characteristics or areas with high rates of septic failure would provide important information in a land capability analysis and, hopefully, the beginning of a better understanding of potential cumulative impacts of long-term use of septic systems in areas with the potential for water quality problems.

Community Wastewater Disposal

The remaining wastewater treatment systems are a form of community collection, treatment, and disposal. The most common form of community system is the treatment plant which discharges treated effluent to a storage and irrigation system (land disposal) or diluted to a surface water course. Presently, the City of Shasta Lake is permitted to seasonally discharge treated effluent to a surface water, namely Churn Creek. A major goal of the City's capital improvement plans has been to significantly reduce or cease the need for any Churn Creek discharge as soon as practically possible.[1]

Both the Cities of Anderson and Redding discharge treated sewage year-round to the Sacramento River. The Central Valley Regional Water Quality Control Board's Sacramento Basin Plan discourages any new plans to dispose of treated wastewater to surface waters.

As with the availability of water for domestic use, the availability of wastewater treatment facilities has a major role for determining the density and intensity of land use for development purposes. Wastewater treatment conditions are generally mapped in Figure 22 of the background study. The major implication to land use planning is that the areas which have community systems in the SCR and Northeast Shasta planning areas present the least constraints on future development with respect to wastewater treatment. The other planning areas are much more constrained by the general unavailability of community systems and limitations on the use of on-site systems.


SOUTH CENTRAL REGION
FIGURE PF-I
SPHERES OF INFLUENCE FOR WATER AND SEWER SERVICE AREAS
N
SHASTA LAKE CITY
CITY OF REDDING
CITY OF ANDERSON
BELLA VISTA WATER DISTRICT
MOUNTAIN GATE C.S.D.
JONES VALLEY C.S.A. #9
KESWICK C.S.A. #25
SHASTA C.S.D.
CENTERVILLE C.S.D.
CLEAR CREEK C.S.D.
OX YOKE C.S.A. #20
COTTONWOOD WATER DISTRICT
TEHAMA CO.
SACRAMENTO RIVER
Mountain Gate CSD
Jones Valley CSA
City of Anderson
TOOT CSA
Keswick CSA
Bella Vista Water District
Shasta CSD
Centerville CSD
Palo Cedro CSA
Clear Creek CSD
Cottonwood Water District
Shasta Lake City
Ox Yoke CSA
City of Redding
Cottonwood CSA

A review of wastewater treatment systems in the SCR planning area also raises issues concerning the coordination of land use planning with the provision of water and sewer services. In the SCR, there are three major community wastewater systems, the Cities of Anderson, Redding, and Shasta Lake. Cottonwood and Palo Cedro have community wastewater systems which are operated by County service areas. The communities of Burney and Fall River Mills are also served by centralized wastewater treatment facilities. The dry flow treatment capacities of these wastewater treatment facilities are shown in Table PF-2.

TABLE PF-2
WASTEWATER TREATMENT FACILITIES
2004

CITY/COMMUNITY	DRY FLOW CAPACITY (MGD)*
City of Anderson	2.00
City of Redding Redding Regional Stillwater Facility	 8.80 4.50[1]
City of Shasta Lake	0.64[2]
CSA No. 8 (Palo Cedro)	0.12
CSA No. 17 (Cottonwood)	0.43
Burney Water District	0.44
Fall River Mills Community Services District	0.07[3]

* MGD = Million Gallons Daily

[1]The City of Redding's Stillwater Regional Wastewater Treatment Facility is ultimately planned for 8.0 MGD dry flow capacity.

[2]The City of Shasta Lake plans to expand its treatment plant capacity to 1.3 MGD average dry weather flow capacity.

[3]The Fall River Mills Community Services District operates a primary evaporation pond system. The 0.07 MGD figure represents existing average dry flows and is not based on the ponding capacity. Pond capacity far exceeds current demand.

Source: Shasta County Department of Public Works

Another form of centralized wastewater treatment relies on much smaller package treatment plants which are designed to serve small and localized needs. These package treatment facilities have been proposed in the past for isolated residential subdivision and commercial areas where the development density is considered too great to safely allow on-site disposal systems. However, only one package system has been constructed. This appears to be because they may not be: (1) cost effective, and/or (2) able to meet State water quality standards. As a result, future development projects, which rely on package wastewater treatment systems, need to be carefully reviewed to reasonably assure their success before receiving approval from the County.

Solid Waste Disposal

The California Integrated Waste Management Act of 1989 initiated a new planning process. The County and its Cities are now required to prepare and maintain an Integrated Waste Management Plan (IWMP), including a Source Reduction and Recycling Element. A key goal of the IWMP will be to reduce waste disposal 50 percent by the year 2000, and assure maintenance of at least a 15-year landfill capacity for solid wastes that are generated in the County and cannot be reduced or recycled. The Source Reduction and Recycling Element was approved by the California Integrated Waste Management Board in 1997.

The County and Cities adopted a Source Reduction and Recycling Element in 1991, which addresses the County's waste generation characteristics, source reduction, recycling, composting, education and public information, funding, and integration of solid waste management issues. The County also adopted a Household Hazardous Waste Element which acts to supplement and support the Source Reduction and Recycling Element. TABLE PF-3 provides information on the County's solid waste disposal characteristics. FIGURE PF-2 shows the approximate location of solid waste facilities in Shasta County. Further information is found in the County's IWMP.

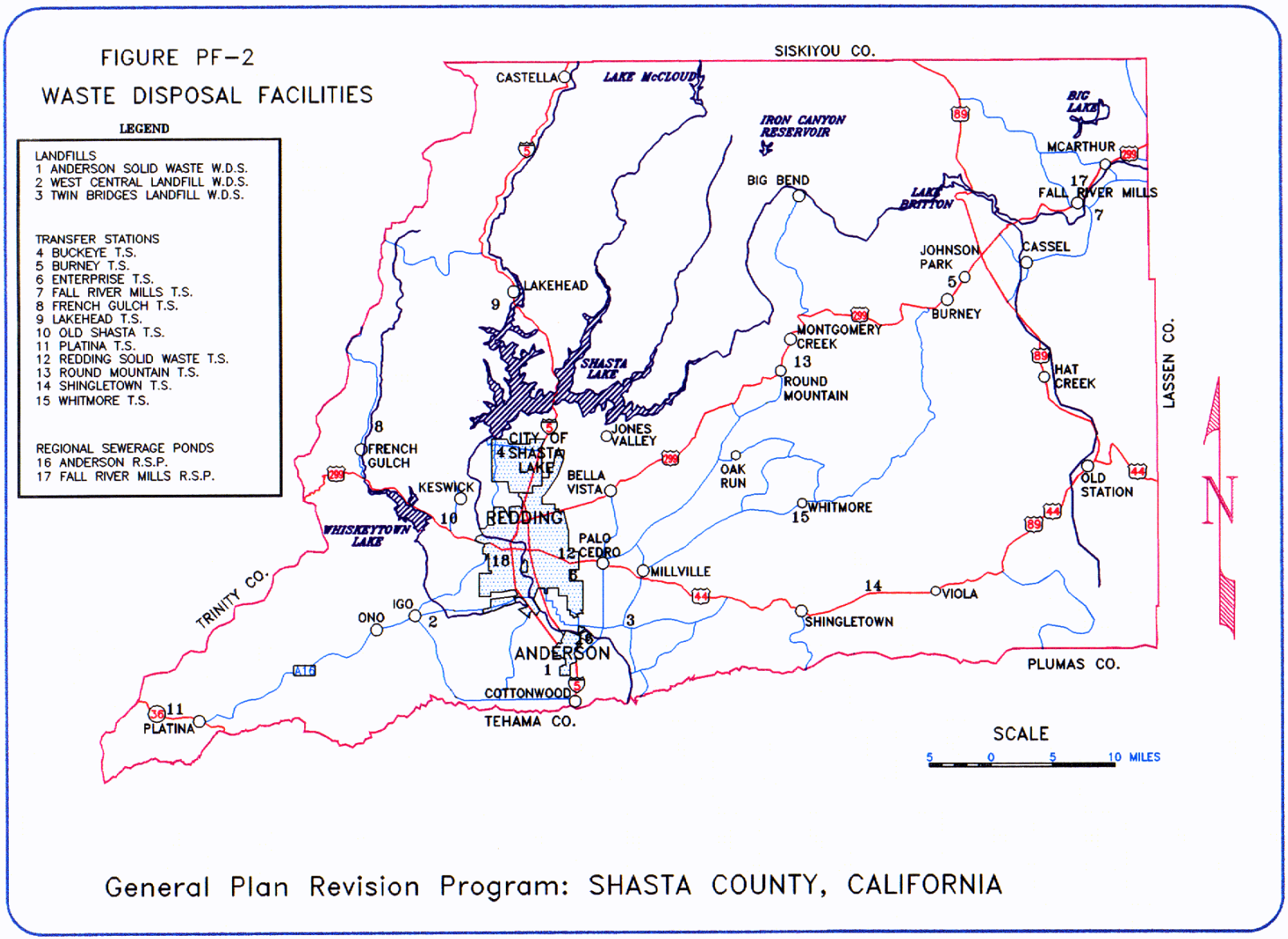
There are currently three landfills operating in Shasta County which are summarized in TABLE PF-4. Anderson Solid Waste receives approximately 200 tons per day of solid waste from residential, commercial, industrial, and agricultural sources. It also receives asbestos waste, shredder waste, and other special wastes that have received a permit from the California Environmental Protection Agency.[2]

The West Central Landfill receives approximately 400 tons per day of non-hazardous waste from residential, commercial, industrial, and agricultural sources.

New solid waste facilities may be conditionally permitted according to the zoning plan, if the site is first found to be favorably based on environmental and social constraints. This plan provides for new solid waste facilities to be conditionally permitted in all areas of the County as the need occurs. This requires the site to be compatible with adjacent land uses. Once the solid waste facility is approved, new land uses in the surrounding area must be regulated to avoid incompatibility with the solid waste facility. The General Plan also sets up a procedure to be updated every five years and will include updating FIGURE PF-2 to identify all new solid waste facilities.

FIGURE PF–2

WASTE DISPOSAL FACILITIES



General Plan Revision Program: SHASTA COUNTY, CALIFORNIA

TABLE PF-3
SUMMARY OF JURISDICTION ALLOCATION - 2004

	TONS LANDFILLED BY QUARTER				2004
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	TOTAL
UNINCORPORATED COUNTY					
West Central Landfill	7,772	7,315	7,266	8,094	30,447
Anderson Landfill	2,609	3,643	3,837	2,936	13,025
Twin Bridges Monofill	2,218	2,326	2,418	2,247	9,209
CITY OF REDDING					
West Central Landfill	19,348	20,346	21,352	18,026	79,072
Anderson Landfill	1,334	1,331	1,577	805	5,047
CITY OF ANDERSON					
West Central Landfill	988	1,277	1,498	1,506	5,269
Anderson Landfill	1,800	1,962	2,239	1,899	7,900
CITY OF SHASTA LAKE					
West Central Landfill	1,239	1,173	1,289	1,389	5,090
Anderson Landfill	642	706	218	70	1,636
SHASTA COUNTY TOTAL BY LANDFILL					
West Central Landfill	29,347	30,111	31,405	29,015	119,878
Anderson Landfill	6,385	7,642	7,871	5,710	27,608
Twin Bridges Monofill	2,218	2,326	2,418	2,247	9,209
SHASTA COUNTY BY JURISDICTION					
Unincorporated Shasta County	12,599	13,284	13,521	13,277	52,681
City of Redding	20,682	21,677	22,929	18,831	84,119
City of Anderson	2,788	3,239	3,737	3,405	13,169
City of Shasta Lake	1,881	1,879	1,507	1,459	6,726
SHASTA COUNTY TOTAL	37,950	40,079	41,694	36,972	156,695

Source: Shasta County Department of Public Works, 2004

TABLE PF-4
SUMMARY OF LANDFILLS

Landfill Name	Type	Owner	Operator	Size (acres)
Anderson Solid Waste	Class III	Anderson Solid Waste Inc.	Anderson Solid Waste Inc.	270
West Central Landfill	Class III	Shasta County	City of Redding	1,200

Source: Shasta County Department of Public Works, 2004

Community Recreation

The community recreation needs of Shasta County residents and the degree to which these needs are met by County government vary with the type of community in which they live. Needs in the unincorporated urban areas of Cottonwood, Burney/Johnson Park, and Fall River Mills/McArthur differ from the needs in the rural community centers, such as Oak Run, Ono, and Shingletown.

Needs in the urban areas, where most lands close at hand are developed and population densities are high, are for publicly-owned park lands, either developed as turfed playfields or equipped with facilities such as ball fields, tennis courts, basketball courts, etc. To a certain degree, recreation needs in these urban communities are satisfied by school districts, but their ability to function as recreation providers is limited both financially and by their responsibilities in other areas. Recreation needs in these areas have also been met in part by special districts and service clubs. Discussions with recreation officials in the unincorporated urban areas of the County indicate that a substantial portion of the recreation needs of the residents of these communities is not being met. These observations are based on the degree of use of available facilities and their inability to accommodate the total demand. Also, the growth of these urban areas over the 20-year planning period will cause a corresponding increase in recreational demand.

In the rural areas of the County, the recreation demands of residents are no less than those of persons residing in urban areas, but they are of a different nature. Open lands are close at hand, population densities are low, and opportunities for informal or passive recreation activities are more readily available. Schools and service organizations play a major role in meeting most, if not all, the needs of rural community residents for developed recreation facilities.

An appropriate County policy for community recreation must recognize these differences among communities. This policy must also realistically respond to the fiscal constraints on County government's ability to act as a recreation provider. While Shasta County has a number of vehicles for obtaining lands and improvements needed for developing public recreation facilities, obtaining assurances for funding long-term operation and maintenance of these facilities is very difficult and uncertain, at best. Therefore, the County's policy will rely upon interagency planning efforts and providing long-term protection of resource and open space lands and features that exhibit future recreation potential. As the County continues to grow, opportunities now available to meet these needs will be foreclosed or available at a substantially higher cost.

In order to adequately provide for the existing and future community recreation needs, Shasta County should consider requiring parklands dedications or in-lieu fees as a condition of approval of all final or parcel maps for land divisions occurring in areas designated by the Community Development Element as urban or suburban residential development. In the interest of uniformity, the existing County standards should be replaced with those applied to urban/suburban development occurring in incorporated areas, specifically the standards used by Redding. Parklands dedication and fee payment will be required only if a local public agency recreation provider, such as a school or special district, agrees to accept and maintain them.

Specific actions needed to implement the above strategy will require that the County prepare and adopt park and recreation plans for the affected communities. State law provides that in-lieu fees or other park and recreation fees be based on fairly detailed facilities and operations plans. The State's Quimby Act, Street Light and Landscaping Act and specific plan regulations are three vehicles that can help in providing the guidance necessary for preparation of park and recreation plans. Specific parks and recreation planning efforts should focus on the following as opportunities may arise:

- The County should work toward adopting an agreement with the Cities of Anderson, Shasta Lake, and Redding regarding parks and recreation plans and financing within the Cities' planning area.

- The development of community plans for town centers identified in Policy CO-r should include plans and implementation for developing park and recreation facilities. These plans should encourage enabling of existing local agencies in these areas to provide for these facilities.

- Regional open space and recreation opportunities afforded by the area's waterways, and particularly by the Sacramento River, should be planned on an interagency basis, which promotes the multi-use values of these resources. State funding will be an important part of implementing this opportunity.

Schools

In recent years, funding for new school facilities has diminished in proportion to capital facilities needs and has been exacerbated by increased special education requirements, class size, and decreased rates of local funding from Federal and State government. As a result, funds for the construction of new classroom facilities may not be available when new development occurs, eventually resulting in school overcrowding. In a partial attempt to bridge this funding gap, the State Legislature adopted the School Facilities Act of 1986, and added amendments effective in 1992, which establish ceilings for which school districts may charge mitigation fees based on the square footage of new residences and certain commercial and industrial uses. Under the 1992 amendments (SB 1287 of 1992), development projects as well as general plan amendments and rezonings may be subject to fees collected under the School Facilities Act. The practical result of the School Facilities Act, as amended, is to assist in paying approximately 40 percent of new school cost needs in Shasta County. [3] Voter-approved general obligation bonds are another source of funds for new school facilities, however the two-thirds voter approval needed has been difficult to obtain. From 1992 to 2004 only four in the last fourteen local bond elections passed at the required two-thirds majority. Given the current funding inadequacies, it is important to note that these sources of income are necessary to adequately house students (State bond funds, local bond funds, and developer fees).[4]

Due to long delays in receiving funding for new school facilities, school districts must project their future needs. Much of the growth within school districts will be determined by land use planning which is under the jurisdiction of the County. Therefore, the County is the logical entity to work with the school districts in projecting school needs for the unincorporated areas. The General Plan should establish a framework and strategy for school facility planning.

Recent case law has helped to clarify the role of the School Facilities Law of 1986, as only applying to development permits and projects.[5] The potential role or relationship of the General Plan in planning for school facilities can be better linked when school districts, whether jointly or individually, prepare and provide facilities plans for enrollment growth in their jurisdictions. Such facilities plans and forecasts can provide the respective districts with a basis for mitigating impacts on school facilities within the context of general plan and zoning amendments. As a result, one of the County's strategies for assuring that adequate school facilities are in place with new development should be to encourage and support school districts in such efforts.

A key to the County's strategy will be to encourage the Shasta County Office of Education to work with all affected school districts to develop standards for preparation of school facilities master plans by individual school districts, including facility financing plans. Presently, there are no State or local standards which guide the preparation of school facility master plans. Because of the large number of school districts in Shasta County, it will be necessary to strive for uniformity in the content of school facilities master plans so that the General Plan's commitment to working with school districts is done on a Countywide basis with reasonable consideration to school financing constraints and local economic and social factors.

In addition to the issues of school financing and facilities planning, school planning and siting must meet certain State requirements, including being located at least 350 yards from any high voltage electrical transmission facility. This State requirement is in place to protect against any potential human health effects to susceptible youth populations by electromagnetic fields which are emitted from such electrical transmission and transformer facilities.[6]

7.5.3 Objectives

PF-1 Development of a comprehensive, long-term plan for wastewater treatment within the County, coordinated with community development objectives and designed to provide this service in a manner making the most effective use of public resources.

PF-2 Achievement of an improved understanding of the opportunities and constraints governing the use of on-site wastewater treatment systems, both conventional and alternative, in Shasta County.

PF-3 Develop the Shasta County solid waste program in accordance with the adopted management plans.

PF-4 Development of a land use pattern which can be adequately served with community facilities such as schools, libraries, and community recreation.

7.5.4 Policies

PF-a Shasta County shall take appropriate actions for achieving objective PF-4. Every opportunity for interjurisdictional and interagency cooperation in other areas shall be encouraged to this end.

PF-b Shasta County shall permit experimentation with "alternative" wastewater treatment technologies on a limited and carefully controlled basis, including advance provision establishing what public or private entity will be responsible in the event of failure, to determine which systems are feasible.

PF-c Shasta County shall take actions required to implement plans for the management of its solid waste stream.

PF-d Shasta County may require the dedication of parklands or the payment of in-lieu fees in accordance with County development standards in the areas of the County designated for urban/suburban development by the Community Development Element. Dedication shall be required only if the lands and fees so obtained will be maintained and administered by a local public agency which provides community recreation services.

PF-e The locations of existing and proposed large-scale community recreation facilities shall be designated on General Plan maps as Natural Resources Protection Parklands (N-P).

PF-f Shasta County should enter into cooperative planning arrangements with the County Superintendent of Schools for the exchange of data, the preparation of coordinated student enrollment projections, and the development of facility plans responsive to the growth of the County.

PF-g Shasta County shall encourage the County Office of Education to work with all affected school districts to prepare and recommend to the County standards for preparation of individual school facilities master plans which set forth, in a uniform Countywide fashion to the extent possible, reasonable assumptions concerning student population growth, facility needs to accommodate growth generated by new development, and targets for use of alternative means of new facility financing consistent with Government Code Section 65996, as may be amended, and other applicable laws and regulations.

PF-h Public uses (e.g. schools, parks, waste disposal sites) and public utilities (e.g. substation, transmission lines) whose site-specific locations often cannot be identified in advance by the General Plan may be permitted throughout the County to serve the public need. Appropriate zoning on site-specific locations will be determined in response to the identified need as it occurs. Solid waste disposal facilities shall be conditionally permitted to ensure that the site is compatible with adjacent land uses. Surrounding land uses, to the extent feasible, shall be regulated to avoid incompatibility with the solid waste disposal facilities.

Footnotes:

1. Churn Creek Task Force - Report to the City Council, City of Redding, August, 1991, Appendix 4
2. Source Reduction and Recycling Element, Shasta County and Cities of Anderson and Redding, Nov. 1991, pg. 1-3.
3. Personal conversation, Dr. Charles Menoher, Shasta County Superintendent of Schools, June 3, 1991
4. Dr. Charles Menoher, Shasta County Superintendent of Schools, Memorandum dated January 30, 1998
5. See Mira Development Corp v. City of San Diego, 205 Cal.App.3d 1201(1988)
6. "Land Use and Electromagnetic Fields," Zoning News, American Planning Associations, January 1992

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