Sewage

RMS LEVEL OF SEVERITY CRITERIA

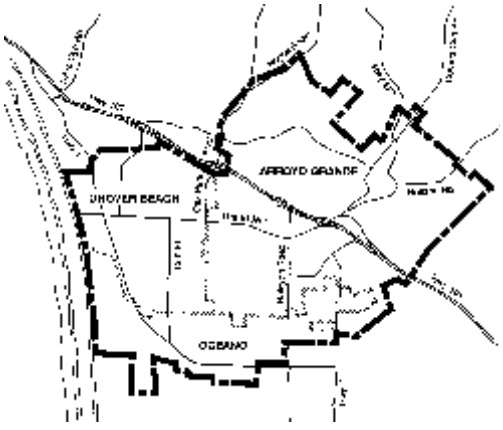
***Level of Severity I**:* When projected peak flow in six years equals the treatment plant capacity.

***Level of Severity II**:* When projected peak flow in five years equals the treatment plant capacity.

***Level of Severity III**:* When the peak daily flow equals or exceeds the treatment plant capacity.

The level of severity criteria listed above apply to sewage treatment plants. The plants are part of local sewage collection systems that also include pipelines, lift stations and other infrastructure. Most of the county's larger unincorporated communities maintain their own treatment plants, with the exception of Cayucos, Oceano, Los Osos and Templeton,. Sewage collection and septic tank systems are addressed with different criteria.

Cayucos. The Cayucos Sanitary District has an agreement with the City of Morro Bay which reserves a portion of the Morro Bay treatment plant capacity for sewage flow from Cayucos.



Oceano. The Oceano Community Services District shares a sewage treatment plant with the cities of Arroyo Grande and Grover Beach through their membership in the South San Luis Obispo County Sanitation District. The plant is located between the Oceano Airport and

Arroyo Grande Creek Channel, within the Oceano Urban Reserve Line.

Los Osos. Los Osos has no sewage collection and treatment system. Instead, homes and businesses have their own septic tanks. A community-wide system is currently being planned by the Los Osos Community Services District.

Nipomo. The Nipomo CSD operates two treatment plants - the Southland Wastewater Works, serving the main community, and Black Lake Wastewater Works.

Templeton. The Templeton Community Services District has an agreement with the City of Paso Robles to send 400,000 gallons per day to the Paso Robles treatment plant. It also has a small treatment plant of its own. This year, about **54** percent of Templeton's flow went to the Paso Robles plant and **46** percent was treated locally.

The status of these sewage treatment plants is summarized in the following table:

Sewage Treatment Facilities - San Luis Obispo County
Average Dry-Weather Flow (ADWF), Levels of Severity (LOS), 2004-2005

Name of Plant	Capacity (Millions of gallons/day)	ADWF	Percent Capacity	2004 Population	Est. Pop at 100% Capacity	LOS
Avila Beach CSD	0.20	0.038	19.0	N/A	N/A	OK
Cambria CSD	1.00	0.602	60.2	6475	10755	OK
Heritage Ranch CSD	0.40	0.152	38.0	2339	6155	OK
Los Ranchos (CSA #18) (4)	0.12	0.089	74.2	1395	1880	OK
Morro Bay/Cayucos	2.06 (3)	1.072	52.0	13380	25730	OK
Cayucos (Morro Bay)	0.721 (3)	0.283	39.3	3067	7804	OK
Nipomo CSD (Southland)	0.90	0.458	50.9	8000	15717	OK
Nipomo CSD (Black Lake)	0.20	0.064	32.0	1023	3197	OK
Oak Shores (CSA #7A)	0.10	0.041	41.0	N/A	N/A	OK
PasoRobles/Templeton	4.90 (1)	2.799	57.1	34066	59660	OK
Templeton (Paso Robles)	0.40 (1)	0.176				
Templeton (Meadowbrook)	0.30	0.151	46.7	7225	15471	OK
San Miguel CSD	0.20	0.114	57.0	1715	3008	OK
San Simeon CSD (4)	0.20 (2)	0.084	42.0	250	595	OK
So. SLO County San. Dist. (4)	5.00	2.879	57.6	36866	63204	OK

Notes: (1) Templeton entitled to 0.40 mgd of Paso Robles plant capacity per agreement
(2) Hearst Castle entitlement is 0.05 mgd; San Simeon CSD entitlement is 0.15 mgd
(3) Cayucos entitled to 0.721 mgd of Morro Bay plant capacity per agreement
(4) Data is for prior year. No report for 2004-05

RMS SEWAGE COLLECTION SYSTEM CRITERIA

The sewage collection system refers to the facilities that collect and deliver sewage to a treatment plant including pipelines, lift stations, etc.

1. Level of Severity I occurs when the projected flow in two years of any portion of the delivery system is 75% of its capacity.

2. Level of Severity II occurs when any portion of a sewage delivery system is operating at 75% of its capacity.

3. Level of Severity III occurs when peak flows reach 100% of capacity.

The following sewage collection systems have reported issues in 2004-05:

Los Ranchos (CSA #18). **A consultant is performing a plant audit to identify possible changes in the treatment process to reduce chloride levels.**

Oak Shores (CSA #7A). **Planned construction of additional percolation ponds will enable the treatment plant to meet winter wastewater disposal requirements.**

Templeton CSD (Meadowbrook Plant). **Discharge is high in sodium and chloride. Expansion of the plant capacity from 0.3 to 0.6 mgd is planned for the summer of 2006.**

City of Morro Bay. **The City and Cayucos Sanitary District have adopted a time schedule for upgrading the treatment plant by 2015. Capacity requirements and project details will be developed in 2006.**

San Miguel CSD. **Effluent has high levels of TDS, sodium and chloride.**

Nipomo (Black Lake). **Sodium, chloride and TDS limits are routinely exceeded. The CSD is continuing its effort to educate its customers about the benefits of replacing self-regenerating water softeners to mitigate this problem.**

Nipomo (Southland). **Planning for expansion of the plant will begin in 06/07 with implementation to follow in 07/08.**

RMS SEPTIC TANK CRITERIA

Septic tank sewage disposal is used primarily in rural areas of the county. RMS criteria for septic tank systems are based upon local failure rates. Both the County Health department and the State Regional Water Quality Control Board (RWQCB) oversee septic system operation. Evidence of septic system failure includes:

* Evidence of sewage on the ground surface,

* Improper draining of plumbing facilities caused by subsurface drainage problems,

* Frequent pumping of subsurface sewage systems for other than normally scheduled maintenance,

* Persistent odors traced to an individual subsurface sewage system,

* Pollution of wells or underlying groundwater,

* Restricted use of plumbing facilities to prevent one of the above from occurring.

1. Level of Severity I occurs when 5% of the septic systems in a specified area fail, or the county Health department identifies a potential public health problem.

2. Level of Severity II occurs when 15% of the septic systems in a specified area fail.

3. Level of Severity III occurs when 25% of the septic systems in a specified area fail and the county Health department and RWQCB find that public health is endangered.

The County Division of Environmental Health inspects, permits, and requires septic tank pumpers to submit an annual report of septic tanks pumped within the county. Aside from these reports, information about septic tank failures is scarce. Further, interpreting frequent septic tank pumping records as evidence of failure may not be accurate. Some people pump their tanks more often than others simply to avoid the possibility of failure, though their systems may in fact operate perfectly. Currently, pumping records are maintained on handwritten forms. Environmental Health hopes to computerize these records as time and equipment allows.

Los Osos

A 1983 water quality study of the Los Osos / Baywood Park area found nitrate concentrations in shallow groundwater generally greater than the maximum level allowable for drinking water set by

the State of California. Pursuant to that finding, the Regional Water Quality Control Board imposed a prohibition on septic system discharges after November 1, 1988. San Luis Obispo county initiated discussion of centralized wastewater collection and treatment as a remedy for the water quality problem. A study of alternative water supply and sewage disposal systems was conducted by USGS in 1988 and a companion study was completed by DWR in 1989. These studies highlighted the linkage between water supply and alternative sewage disposal methods. They pointed out that centralized collection and treatment of wastewater could reduce nitrate concentrations in the groundwater supply and could be used to recharge the aquifer and increase the effective dependable supply of the groundwater basin. However, the substantial expense of constructing a new sewer system has made implementation a controversial issue.

On October 10, 1995, the Board of Supervisors approved a wastewater disposal system, by which collection and treatment facilities would be designed to accommodate the entire community, with on-site, engineered disposal systems being used in some areas if designated recharge sites prove inadequate to handle all of the effluent.

In November, 1998, voters approved the formation of a Community Services District (CSD) for the Los Osos community to assume responsibilities for the completion of a wastewater project. In January, 1999, the California Coastal Commission voted to allow the newly-formed CSD the opportunity to demonstrate the feasibility of an alternative solution to the water pollution problem which involved new technology for the treatment of effluent. The Commission gave the CSD until January, 2000 to prepare a facilities plan for the alternative wastewater system and to present the plans to the Regional Water Quality Control Board.

In May, 1999, the Regional Water Quality Control Board adopted revisions to previously approved guidelines that would allow a limited amount of new development in the prohibition area. Some development could begin immediately in the Bayview Heights and Martin Tract areas, and there could be some commercial development with no restriction as to area. Additional development would be allowed when design plans for the community-wide wastewater collection and treatment system were complete and an On-Site Wastewater Management District was formed. In November, 1999 the Los Osos CSD issued a Notice of Preparation for an EIR for the Los Osos Wastewater Project. The project includes a septic tank maintenance and management program, a septic tank effluent pumping / septic tank effluent gravity collection system, and a disposal system which would recharge the upper and lower groundwater aquifers.

Level of Severity III is recommended for the community-wide septic tank sewage disposal system in Los Osos. This recommendation is based on:

a. identification of rising nitrate levels in Los Osos groundwater by RWQCB;

b. the RMS criterion that pollution of underlying groundwater may constitute evidence of septic system failure;

c. the RWQCB's prohibition on new septic tank discharges.

Recommended Level of Severity: III

Actions: Continue to monitor the actions of the Los Osos CSD and the RWQCB. Adjust recommended Level of Severity as warranted by progress toward implementation of a wastewater project.

2005 UPDATE

The CSD's 2005 Water Management Plan estimated that construction of the planned wastewater treatment system would result in an increase yield for the Los Osos Valley groundwater basin. However, 2005 has seen continued controversey over the location of the proposed treatment plant. As of December, 2005, the location, cost and availability of funding for new wastewater facilities remained undetermined. ■

Nipomo

According to the 1985 grant agreement that financed construction of the Nipomo CSD sewer system, 100 percent of property owners within the service area were required to connect to the system within ten years. As of 2002, 150 homes remain unconnected to the system. These homes rely on individual septic systems, some of which have failed to function properly during periods of prolonged heavy rainfall. The Regional Water Quality Control Board has registered it's concern with the NCSD. The two agencies are in the process of developing a coordinated response, including written notification to property owners and consideration of possible enforcement action.

Septage

Environmental Health inspects and permits septage disposal sites. The Regional Water Quality Control Board encourages the beneficial re-use of septage as fertilizer or soil amendment. Septage disposal by the ponding method is not considered beneficial. Suitable septage disposal sites have become increasingly scarce in the county. Historically, because of the dispersion and relatively small scale of such sites, strict management of the disposal process has not been consistently observed. EPA rules and their enforcement by the RWQCB have now made it too costly or otherwise disadvantageous for owners of agricultural land to continue to make their property available for ponding of sludge and/or septage.

Land application at privately operated sites has been the preferred method of disposal because of its low cost. In contrast, the alternatives to current practice are all more expensive, with the added costs accruing, in some measure, to the pumpers, the farmers, treatment plant operators, and the county. Alternatives include: establishment of a regional facility on private property or on county-owned land; modification of sewage treatment plants to allow for co-treatment of septage and domestic wastewater; development of independent septage treatment facilities; incineration; establishment of a composting facility; disposal in Class I or II landfills; and, transport to Santa Maria or Camp Roberts treatment plant.

Currently, all septage generated in the county is transported to the Santa Maria or Camp Roberts treatment plants, or it is processed at dewatering facilities located at treatment plants within San Luis Obispo County. Land application remains an acceptable solution. However, permitting requirements make other alternatives more attractive to pumpers.

In 2004, the Board of Supervisors adopted an ordinance to establish an interim moratorium on the land application of treated sewage sludge (biosolids). The moratorium will last for 24 months or until a permanent ordinance is enacted, whichever occurs first. Land application of biosolids is subject to authorization by the County's Division of Environmental Health. The moratorium limits the application of "exceptional quality" biosolids within the County to no more than 1,500 cubic yards in any twelve-month period.