

SANITARY SEWER ELEMENT MAJOR FINDINGS

1. In 1996, Pinellas County Utilities (PCU) operated three regional wastewater treatment plants and two package plants, with a total capacity of 43.08 million gallons per day (mgd).
2. In 1988, Pinellas County was operating six package plants. However, the Curlew Groves package plant was taken off line in July, 1991, and Cypress Run package plant was taken off line in April, 1993. Pine Ridge and East Lake Woodlands plants were taken off line in 1995, and the Tarpon Woods and Tarpon Lake Village package plants went off line in 1997. All of the County's package plants are offline and all flows have been diverted to the North County Plant.
3. In 1974 there were 74 package plants in Pinellas County; in 1988 there were 36 package plants; and in 1994 only 19 package plants were left in operation.
4. Effluent disposal methods have changed since the 1970s in response to federal and state legislation, and Pinellas County currently has no discharge to surface waters.
 - In 1975, the Pinellas County McKay Creek plant practiced surface water discharge of secondarily treated effluent. In 1988, deep well injection was the primary means of effluent disposal, and remains so in 1997. McKay Creek is scheduled to go off-line by 2000 and flows will be diverted to the South Cross Bayou plant.
 - In 1975, the Pinellas County South Cross Bayou plant practiced surface water discharge of secondarily treated effluent. In 1988, deep well injection was the primary means of effluent disposal. Reuse of reclaimed water will be the primary means of effluent disposal after upgrades are completed at South Cross Bayou in 1998.
 - The North Pinellas County plant provides reclaimed water to several public and private sites in northern Pinellas County with further expansion planned in the immediate future.

5. Several of the regional wastewater treatment plants operating in Pinellas County have undergone capacity changes since 1988. These include the following:

	1988 Capacity (mgd) ¹	1994 Capacity (mgd) ¹
N. Pinellas County	3.39	9.00
Dunedin	5.00	6.00
Clearwater - N.E.	8.00	13.5
Pinellas County -		
South Cross Bayou	28.50	27.00*
St. Petersburg - N.W.	12.00	20.0

1mgd = million gallons per day.

* = SCB reduced 1.5 mgd during phased construction.

6. 4,689 unincorporated County residents received wastewater treatment service only from a municipality in 1994.
7. 5,402 unincorporated County residents received collection service only from a municipality in 1994.
8. 30,358 unincorporated County residents received both collection and treatment service from a municipality in 1994.
9. The PCU served 82,608 municipal residents and 234,881 unincorporated residents (including collection service for Bear Creek) in 1994.
10. North Pinellas County Treatment Plant will approach 80 percent of treatment capacity by 2005, however capacity expansion is not anticipated due to service area build out.
11. The McKay Creek Treatment Plant will reach 75 percent of its treatment capacity in 1997. However, McKay Creek is anticipated to go off-line in 1999, and its flows will be diverted to South Cross Bayou after expansion and upgrades are completed.
12. In 1995, the South Cross Bayou Treatment Plant was undergoing treatment upgrades and capacity expansion to 33.0 mgd to accommodate flows from McKay Creek. Although 80 percent of its treatment capacity will be exceeded by 2015, expansion is not anticipated since build out will be fairly complete in the South Cross Bayou/McKay Creek service area.

13. Infiltration and inflow are contributors to daily wastewater flow, depending upon the weather and the condition of the collection system. Collection system improvements are required, primarily in the McKay Creek and South Cross Bayou service areas, due to the age and condition of the system. The PCU has an active maintenance and rehabilitation program for its collection system.
14. Approximately 99 percent of households in the unincorporated County are presently on sanitary sewer. Eventually, the PCU would like to provide sewer to the entire unincorporated service area. Feasibility studies are conducted on an annual basis which address expansion of sewer services to areas not covered, and the County works with adjacent municipalities to develop options for providing sewer service to these enclaves. Equally important is the enforcement of the County ordinance requiring an individual to hook-up to sanitary sewer as the service becomes available.
15. On-site treatment and disposal systems (OSTDS) represent potential point sources of pollution to surrounding ground and surface waters.
16. All households and businesses serviced by OSTDS located within a potable water wellfield protection area should be on sanitary sewer.
17. Reuse of treated wastewater is beneficial as a water conservation measure as well as an alternative for wastewater disposal.
18. Reuse of treated wastewater conserves potable water resources, thereby postponing the need for capital outlays for increased water supply capacity, as well as serving as a means of effluent disposal. The PCU has developed a reuse distribution system in the northern part of the County, and is in the process of developing a reuse distribution system in the southern portion of the County. This expansion will eliminate the deep well injection of effluent at McKay Creek and South Cross Bayou.
19. The County generated 87.2 million gallons of wet sludge in 1994, and is expected to generate 99.9 million gallons in 2015 based on 1994 per capita figures.
20. Currently, sludge is hauled to permitted disposal sites outside the County. However, PCU has solicited bids for the construction of a pelletization plant by December, 1999 that will handle the sludge generated at PCU wastewater treatment facilities, and will have a capacity of 30 dry tons per day. [99-52]

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**SANITARY SEWER ELEMENT
GOALS, OBJECTIVES AND POLICIES**

1. GOAL: WASTEWATER COLLECTION, TREATMENT AND DISPOSAL FACILITIES SHALL BE AVAILABLE TO SAFELY MEET EXISTING AND FUTURE DEMANDS, SHALL CONTRIBUTE TO WATER CONSERVATION, AND SHALL NOT CONTRIBUTE TO THE DEGRADATION OF THE SURROUNDING NATURAL ENVIRONMENT.

1.1. Objective: Pinellas County Utilities (PCU) shall provide the levels of service necessary for proper wastewater treatment and disposal in order to ensure the protection of its citizens and the environment.

1.1.1. Policy: Wastewater flows associated with existing and permitted development cannot exceed the wastewater treatment plant's permitted design capacity.

1.1.2. Policy: Treated effluent and sludge shall meet all pertinent federal, state and local standards and regulations for treatment and disposal.

1.1.3. Policy: Levels of service associated with each treatment plant service area shall be:

North Pinellas County	70	gpcd*
McKay Creek	113	gpcd
South Cross Bayou	111	gpcd

**gallons per capita per day*

These levels of service incorporate residential flows, as well as commercial and industrial contributions. Also included are those flows associated with infiltration and inflow. These numbers are used to determine future facility needs; they are not used in the engineering and design for sanitary sewer collection, transmission, treatment and disposal facilities.

1.1.4. Policy: Peak design flow capacity shall be between 1.5 and 2.5 times the average daily flow for each sanitary sewer system, based on the individual characteristics of the system.

1.1.5. Policy: For those portions of the unincorporated County receiving sanitary sewer service from adjacent municipalities, the levels of service adopted by each respective municipality are hereby adopted:

<u>Municipality</u>	<u>Level of Service Standards</u>
City of St. Petersburg	
- Northwest Plant	166 gpcd and 1.25 mgd maximum day ratio
- Northeast Plant	153 gpcd and 1.24 mgd maximum day ratio
- Southwest Plant	173 gpcd and 1.25 mgd maximum day ratio
City of Clearwater	
- Marshall Street	121 gpcd
- East Plant	142 gpcd
- Northeast Plant	119 gpcd
City of Largo	100 gpcd
City of Dunedin	The capacity to transport and treat 102 gpcd. Wastewater flows shall not exceed the Dunedin WTP permitted design capacity of 6.0 mgd, average daily flow
City of Oldsmar	130 gpcd 117 gpcd (1996)
City of Tarpon Springs	200 gpcd, and reduce infiltration and inflow so average flow does not exceed 175 gpcd by 1992. Peak design flow shall not exceed 1.3 times the average

1.1.6. Policy: The concurrency management program adopted by the Pinellas County Board of County Commissioners shall utilize the operational permit procedures of the state Department of Environmental Protection.

1.2. Objective: Wastewater Treatment facilities and their operation shall be protected from natural disasters.

1.2.1. Policy: All federal, state and local regulations pertaining to the siting, construction, and operation of sanitary sewer facilities (as indicated in the Regulatory Framework section of the Sanitary Sewer Element) shall be adhered to.

- 1.2.2. Policy: The future siting of wastewater treatment plants shall not occur within the Coastal High Hazard Area. [99-24]
- 1.3. Objective: The County shall support resource conservation consistent with the Pinellas County Reuse Master Plan.
- 1.3.1. Policy: Reuse of treated wastewater shall be the preferred method of effluent disposal over surface water discharge.
- 1.3.2. Policy: In order to accommodate future commitments for treated effluent, the Reuse Master Plan shall designate effluent reuse service areas.
- 1.3.3. Policy: Spray irrigation sites shall be identified where hydrogeological characteristics are conducive.
- 1.3.4. Policy: Distribution lines for reclaimed water use shall be extended and designed so as to make individual subdivision hook-up available.
- 1.3.5. Policy: PCU shall work with appropriate agencies and departments to investigate additional wastewater reuse options which replace industrial and commercial demands on the potable water supply.
- 1.3.6. Policy: Public education by the PCU shall be a component of the County's wastewater reuse program.
- 1.3.7. Policy: New development shall conform to the County building code requiring installation of water conservative plumbing fixtures.
- 1.3.8. Policy: 100 percent of reclaimed wastewater will have the potential for use by the year 2002 through the development of new use options and delivery system expansions.
- 1.4. Objective: Preservation and restoration of ground and surface water quality, including the protection of associated habitats, shall be a priority in the consideration of wastewater treatment and disposal methods.
- 1.4.1. Policy: The County shall require hook-up to sanitary sewer as it becomes available pursuant to the sanitary sewer provisions within Section 126 of the Pinellas County Code.

- 1.4.2. Policy: All regulations pertaining to surface water discharge, and reclaimed water use, and deep well disposal of treated effluent shall be adhered to (as indicated in the Regulatory Framework section of the Sanitary Sewer Element).
- 1.4.3. Policy: The provisions of the County's wellfield protection program shall be enforced to protect the water supply from potential pollutants.
- 1.4.4. Policy: New septic tanks shall be discouraged in those areas where geology and soils indicate possible contamination of surface waters from seepage.
- 1.5. Objective: The provision of sanitary sewer service shall not present a public safety hazard or public nuisance.
- 1.5.1. Policy: New sanitary sewage treatment plants shall not be sited next to incompatible land uses.
- 1.5.2. Policy: A land use compatibility study shall be undertaken prior to the siting of any new facilities.
- 1.5.3. Policy: All federal, state, and local regulations pertaining to the safe and efficient operation of sanitary sewer facilities (as indicated in the Regulatory Framework Section of the Sanitary Sewer Element) shall be adhered to.
- 1.6. Objective: The County shall pursue a system of sanitary sewer service that emphasizes regional facilities.
- 1.6.1. Policy: In conjunction with the annual Capital Improvement Program, Pinellas County Utilities shall prioritize and provide regional sewer service to those areas where it is determined to be feasible, and in order to prevent the degradation of the natural environment.
- 1.6.2. Policy: PCU shall develop regional alternatives to onsite sewage treatment and disposal systems (OSTDS) and will work with municipalities on a case by case basis to develop solutions where feasible.
- 1.6.3. Policy: PCU shall establish dialogues with interested municipalities to determine the feasibility of transporting wastewater across service boundaries.

- 1.6.4. Policy: OSTDS use shall not conflict with determinations to be made by the wellfield protection program regarding the County’s wellhead protection area. Commercial and industrial OSTDS are prohibited in the County’s wellhead protection area, and new single-family residential septic tanks are exempt from the requirements of the County’s wellfield protection program provided they meet the minimum requirement of one unit per two acres.
- 1.6.5. Policy: Onsite sewage treatment and disposal systems shall only be permitted in those areas with geology and soils conducive to effective and sanitary operation and which comply with the requirements of Chapter 10D-6 (Standards for Onsite Disposal Systems) of the Florida Administrative Code.
- 1.6.6. Policy: Septic tank systems shall not be permitted if sanitary sewer service is available.
- 1.6.7. Policy: Those entities served by septic tank systems operating within a sewer service area shall be required to connect to sanitary sewer service within six months of availability.
- 1.7. Objective: There shall be an annual process of review to determine the adequacy of the current implementation schedule for improvements, to roll new projects into the CIP and to make modifications as appropriate to existing priorities and funding strategies.
- 1.7.1. Policy: As part of the annual Capital Improvements Program process, the County shall evaluate the projects proposed for inclusion in the six year schedule of capital improvements.
- 1.8. Objective: The County shall provide a program of maintenance and upgrade for all sanitary sewer facilities under the jurisdiction of the Pinellas County Utilities (PCU).
- 1.8.1. Policy: The County shall continue its annual program of upgrade and improvement to the collection, transmission, treatment and disposal systems of the PCU.
- 1.9. Objective: The County shall provide adequate sanitary sewer treatment capacity for all current and projected unincorporated Pinellas County customers.
- 1.9.1. Policy: PCU shall identify those service areas requiring additional treatment capacity, develop a set of economically feasible and environmentally sound recommendations for additional capacity, and implement a program to accommodate the future need.

1.10. Objective: By December 1999, the County will release a Request for Proposals to construct and operate a sludge disposal system. [99-52]

1.10.1. Policy: The County will contract for the construction and operation of a pelletization plant as an economically feasible and environmentally sound sludge disposal alternative to replace current landspreading practices. [99-52]

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